SELF STUDY REPORT

FOR

2ⁿᵈ CYCLE OF ACCREDITATION

MADHAV INSTITUTE OF TECHNOLOGY AND SCIENCE

MADHAV INSTITUTE OF TECHNOLOGY AND SCIENCE RACE COURSE ROAD,
GOLA KA MANDIR
474005
www.mitsgwalior.in

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

February 2023

1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

- Madhav Institute of Technology & Science (MITS), Gwalior was established in 1957 by His Highness Sir Jiwaji Rao Scindia, Maharaja, of the erstwhile state of Gwalior under open door policy of Govt. of India.
- The foundation stone of the institute was laid by the then President Dr. Rajendra Prasad, on 20th October, 1956 and the building was inaugurated by the then President Dr. S. Radhakrishnan on 11th December, 1964. The Golden Jubilee celebration in 2008 was graced by the then President of India.
- Madhav Institute of Technology & Science (MITS), Gwalior run by the Scindia Engineering College Society, is a UGC Autonomous, NAAC Accredited, state government grant-in-aid institute, affiliated to RGPV, Bhopal. It is situated in the northern part of Madhya Pradesh.
- The institute has a lush green, campus spread in 44.6 acres.
- The Institute started with 3 disciplines; Civil, Mechanical and Electrical Engineering with a total intake of 120. Now, there are17 under graduate and 10 post graduate Programmes in Engineering & Technology, Architecture & Planning, Computer Application and Management with a total strength of approximately 5000 students. There are about 100 Ph.D. scholars in different disciplines.
- As per the vision of the institute,*" **To create world class quality Engineers and Technocrats capable of providing leadership in all spheres of life and society ",** the institute is committed to achieve and maintain quality through several different initiatives and endeavors. The mission is to maintain a dynamic approach and constantly upgrade & update efforts to fulfil stakeholder expectations in the ever changing global technological scenario.
- The NPTEL local Chapter of the institute ranked 2nd across the nation during January-April 2022 session. with AAA rating.
- The institute is listed in 251-300 band of NIRF -2021, promising band of ARIIA-2021 and is ISO 9001:2015 compliant. Many of the programmes are accredited by NBA.
- It is a recognized Centre of the Quality Improvement Programme (QIP) of AICTE for Ph.D. Programmes. The Institute has implemented TEQIP-II & TEQIP-III successfully and was declared as the best performer in the final performance audit.

Vision

''To create world class quality Engineers and Technocrats capable of providing leadership in all spheres of life and society "

Mission

¢ To provide quality education in technical and allied disciplines.

¢ To organize and arrange innovative courses in Engineering and Technology.

¢ To arrange vocational courses in the upcoming fields and innovative subjects to meet global advancement.

¢ To promote research in the fields of Technology and Science.

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

- UGC autonomy and NAAC accreditation since 2017
- Autonomous under affiliated university since 2000
- A blend of eminent persons from society, administration, academia and industry, constitute the BoG who are closely associated with the development of the institute
- The vast alumni base of the institute
- The institute has effectively implemented the Flexible Curriculum for 2017-2021 batch onwards and integrated NEP-2020 parameters and provisions from 2020-2021 batch onwards. The examination reforms have been implemented and are in practice.
- The institute NPTEL Local Chapter ranked 2nd among 4500 Institutions in India in 2022
- The faculty is experienced, well qualified and the retention is good.
- The institute has a state-of-the-art digital studio to facilitate development of MOOCs by the faculty.
- A beautiful building, green & environmentally conscious campus and excellent academic/other infrastructure

Institutional Weakness

- Financial constraints for removal of obsolescence & commencement of new demand based programmes/facilities.
- There is a need for strengthening industry collaboration for faculty training, conduction of corporate training programmes and industry sponsored research projects.
- Requirement of an auditorium, indoor sports facilities, & accommodation for students/staff
- Up-gradation of Networking of Campus

Institutional Opportunity

- The path has been paved for acquiring the status of a 'degree granting autonomous institute'.
- Multiple mode teaching-learning-evaluation system is developed by the institute enabling attainment of higher order thinking skills (HOTs)
- Effective tapping of the huge alumni potential of the institute as off campus-resource persons for the institute internship programme and for strengthening the start-up activities
- The faculty is developing their own MOOCs. About 10 courses are ready to be launched
- Active participation in community development programme for regional needs
- Strengthening collaboration with local industry for student projects and learning
- Very good air & train connectivity with other parts of the country, particularly to the national capital

Institutional Challenge

- To constantly update and upgrade curriculum, faculty skills and laboratory infrastructure to fulfil stakeholder/market needs
- The lack of exposure to new technology/facilities can become a hurdle for imparting high quality education to the students.
- Lucrative financial packages as well as facilities / resources provided by the private/foreign competitors can cause migration of good faculty members
- Due to fast changes in government policies (in education sector), new foreign universities, private universities are coming up, which will cause great challenges and competition.

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

- The Board of Studies proposes the curriculum. The syllabi are continuously updated in consultation with experts from industry, academia, alumni and students, taking advantage of the academic autonomy from the affiliating university since year 2002.
- The curricular structure is prepared after rigorous discussions and pedagogical workshops, both conducted in-house as well as with external experts. Keeping in mind the national and international needs, desired graduate attributes, and guidelines such as United Nation's sustainable development goals (UN-SDGs), a balanced structure is proposed.
- There are course committees at the department to address each vertical/sub-discipline. A structured feedback system is in place. The Board of Studies (BoS) meetings followed by the Academic Council meetings are conducted twice a year. Before the meeting, feedback on existing curriculum is collected from stakeholders.
- All faculty members are the members of the BoS along with nominated experts from the state, outside the state, alumni and industry persons.
- The points related to the institute policy are included and circulated by the Academic Development Cell (ADC).
- All the courses are developed by identifying the specific course outcomes, which are mapped with the POs and PSOs. Shortfall in POs the attainment is backtracked to identify gaps in COs and curriculum is accordingly revised or new courses are developed
- The provision of **'Professional Development'** is made by assigning 02 credits, evaluated at the final semester, for extra & co-curricular activities.
- Professional Ethics, Gender, Human Values, Environment and Sustainability, Project Management, Disaster Management, Indian Constitution & Traditional Knowledge are mandatory audit courses.
- About 78 different optional courses are also offered in 'Novel Engaging Course' category.
- For preparing future ready engineers, courses such as Cyber Security, Intellectual property Rights, Data Science, Artificial Intelligence & Machine Learning are mandatory courses.
- Interdisciplinary learning and flexibility is already included through the provision of DEs/OCs/Honours degree/Minor specialization. Students can earn minor specialization & Honours degrees in addition to UG degree by earning 20 additional credits
- There is a provision of full VIII semester internship at industry/research organization for making them job ready.

Teaching-learning and Evaluation

- In order to unburden the students from high stake end-term examinations, the weight of continuous evaluation is slowly being increased. Presently the ratio of continuous to end-term evaluation has been increased from 30:70 to 40:60.
- Continuous evaluation of theory course consists of 20% weightage to learning through quizzes and assignments, mini projects etc. and 10% each to two mid-semester examinations. To promote modern tool usage, laboratory courses have a "Skill Based Mini Projects" component with 20% weightage and the other 20% weightage is given to lab-work/sessional.
- The Learning Management System, MOODLE (Modular Object Oriented Dynamic Learning Environment) is effectively used by faculty and students of the institute for teaching, learning and assessment purposes providing a student centric 'any-time-any-where' format of learning.
- MOODLE is also very effectively used for continuous and online end term evaluation, setting MCQ based question paper and conduction of exam.
- The lecture plans are prepared according to the 'Multiple Mode Teaching Learning Pattern' (MMTLP) developed by the institute. The lecture plan reflects the mode and pedagogical methods of teaching.
- The "Digital Teaching-Learning Action Plan" was prepared during the COVID period by customizing the PRAGYATA guidelines of Ministry of Education, (then MHRD), New Delhi to the scheme, scope and needs of engineering education.
- Some Department Elective and Open Category Courses are offered through MOOC platform (NPTEL/SWAYAM) and credits are directly transferred.
- MITS is a NODAL center of Virtual Labs (An Initiative of Ministry of Education under the National Mission on Education through ICT) from 21st July, 2020 onwards in association with IIT-Delhi. Some experiments are conducted in virtual mode also.
- The Examination Control System is automated resulting in extensive improvement in the efficiency and transparency of the whole process. Valuation is conducted digitally and answer books are displayed to the students.
- The examination reforms based on 'Outcome Based Education' have been implemented. The end-semester evaluation for theory courses is conducted in multiple modes viz, Pen & Paper, Assignment plus Oral and Multiple Choice Questions.

Research, Innovations and Extension

- Institute has a well-defined Research Promotion Policy which is disseminated through its website. The Institute has an established Research Committee to promote and encourage research among students and Faculty. Support is provided to faculty members in applying for research projects offered by different funding agencies.
- There are about100 scholars working in different domains of engineering and science. Institute has created an ecosystem for innovation, creation, and transfer of knowledge by establishing R&D cell, MOUs with industries.
- Research scholars undergo a rigorous coursework and their progress is monitored regularly through the Research Advisory Committees. Scholars are required to publish minimum two papers in the area of their research before submission of the thesis.
- Technical events such as quizzes, projects exhibitions, paper presentations, posters, etc. are organized to showcase talents of students. The Institute organizes FDPs, STTPs, Technical Workshops, Seminars, and National and International Conferences on a regular basis.
- The faculty qualifications are good and many of them have good exposure and research collaboration

with institutes of repute and due to being on the expert panels of Central Agencies like the NBA, UPSC etc.

- During the last five-years, faculty members at Institute have published more than 400 research articles in different journals and conference publications. In order to create a research culture among students and faculty, the institution has collaborations with about 400 plus industries/organizations.
- Research grants of more than 3 Crore were received from various agencies for research projects. About 80 workshop/awareness programmes were conducted on Research Methodology, Intellectual Property Rights (IPR), Entrepreneurship and Skill development.
- More than 100 books and chapters in edited volumes/books were published and around same number of papers were presented in national/international conference-proceedings.
- Revenue of around Rs. 1.0 Crore was generated from consultancy during the last five years. More than 100 extension and outreach activities were carried out by the Institute through NSS/NCC.
- More than 500 collaborative activities are carried out for research, faculty/student exchange and industry Internships. 25 plus active collaborations and MoUs have been in action with industries, government and research organizations in India.

Infrastructure and Learning Resources

- The institution is endowed with ICT enabled classrooms, seminar halls, well equipped laboratories, conference hall, conclave centres, conventional hall, sports facilities and other well maintained & user friendly infrastructure facilities.
- The institute has installed a Sewage Treatment Plant (STP) and roof top rain water harvesting system in the campus to recharge the ground water table.
- The campus has an adequate internet facility with dedicated leased line and computing facilities. Library is enabled with Wi-Fi and RFID technologies for issue and return of books.
- The Institute has its own MOODLE server since 2017 to facilitate E-learning & evaluation. NPTEL local chapter has been established since 2017 to provide e-learning through MOOC courses and had been ranked **second** in the January – April 2022 session among the 5000 active local chapters of NPTEL.
- The library is automated with KOHA Library Management Software. Library has Text books, reference books, journals and special reports. In addition, digital library with computer systems and online learning resources is also available.
- The institution has a committed team to look after various IT infrastructure. Campus area is wi-fi enabled. The institution has a well-defined IT policy in place for the effective utilization of the IT infrastructure. CCTV surveillance system has been in place to strengthen the safety and security aspects.
- The Institute has a MOOC development centre equipped with various facilities where MOOC courses are being developed by the faculty members.
- The Institute has established Students Development Cell for promoting and organizing extracurricular and co-curricular activities.
- There are 65 student clubs on campus out of which about 10 clubs deal with cultural, yoga, sports and games activities exclusively. Conclave centre etc. are used extensively for conduction of Indoor cultural activities & fests. For outdoor cultural activities, main ground and courtyard ground is used extensively. For sports activities, various grounds and courts are used.
- The Institute has well established systems and procedures along with dedicated manpower for monitoring and to ensure proper maintenance and utilization of infrastructure, library, sports facilities, laboratories, classrooms, seminar halls, students activity centre etc.

Student Support and Progression

- The institute curriculum and practices are designed to achieve all three domains of learning; knowledge, skills & attitudes.
- The first two domains are addressed through curriculum, pedagogy and various academic activities, working in well-equipped laboratories, skill based projects and assignments.
- For the development of a good attitude and behavior, ethical conduct, team spirit and soft-skills there is provision of activity based learning through focused courses, presentations, proficiency evaluation, group learning and various activities in the campus which are organized by the students.
- The Institute has established Students Development Cell for promoting and organizing extracurricular and co-curricular activities. There are 65 student clubs on campus which are active year the round.
- There is a practice of conduction of 'Orientation Programs' at the onset of semester to brief them on 14-specific points related to academic, extracurricular and career related activities to be conducted during the semester. Separate support and sessions are conducted for the lateral entry students to address the curriculum gaps for transition to the degree programme.
- The slow learners are identified by the course faculty and regular remedial classes, extra assignments and quizzes are conducted for slow learners. Similarly, support is provided to the fast learners also.
- The institute follows a 'Mentor-Mentee System'. Besides this, personal counselling is given to students through a full time, qualified professional Student Counsellor.
- A number of sports and cultural activities/competitions are organized by the institute every year wherein the students play an important role in planning and organizing the activity.
- The institution also has a transparent mechanism for timely redressal of student grievances. Students are represented in several academic & administrative committees of the institute.
- In-house internship programmes are conducted mandatorily for students in first year and second year while internship support is provided to the third year students on a need basis.
- Scholarships and Free ships to students is given through Government/Non-Government schemes. Financial assistance was also given by the institute to students who lost their parents during the COVID-19 pandemic.

Governance, Leadership and Management

- The institute is managed by Scindia Engineering College Society (SECS) which is registered under the Societies Registration Act No. 53 of 1950 (no. 337 of 1956).
- The Board of Governors of the Institute is constituted as per UGC & AICTE guidelines. It consists of eminent and nationally known individuals from society, administration, academics and industry with Shrimant Jyotiraditya M. Scindia, as the Chairman.
- The Board of Governors of the Institute plays an important role in the growth of the Institute through regular reviews of policy matters and initiating new practices by creating 5-year vision plans. Year-wise targets have been set through the 'NEP-2020 Action Plan' prepared by the institute and approved by the BoG in its meeting in July 2020.
- The Institute is administered on a day to day basis by the Director with other faculty members holding key administrative and academic responsibilities.
- The organizational chart and the roles and responsibilities of each functionary are clearly defined and also available on Institute website.
- The vision, mission, branding Statement and value framework is aligned with the perspective plan of the Institute, which is prepared with the contribution from BoG members and faculty members considering the SWOT analysis, vision plan of each department and feedback from stakeholders.

- Powers are given to Class Coordinators to ensure decentralization of all processes, monitoring records of attendance, student leaves, forwarding various documents & applications of students and final forwarding of examination form.
- 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 for monitoring activities related to attainment of learning levels, coordinator for remedial/bridge classes, web coordinator for departmental webpage management, Coordinator for departmental e-Newsletter, alumni coordinator for enhancing and managing alumni interaction and plagiarism administrator have clearly defined responsibilities.
- Due to the constant efforts of MOODLE coordinators, use of MOODLE for teaching-learning-evaluation has been institutionalized now.

Institutional Values and Best Practices

During the last five years, the IQAC has been initiating practices and processes for establishing quality culture in the institute. Many of them are now internalised.

Gender warriors were appointed to maintain a gender neutral environment. The gender sensitization cell is very active and an annual action plan is prepared for conducting various events and activities in order to create awareness among faculty/staff and students.

A unique online faculty feedback collection system is in place which has been continuously improved. The idea is to get frank responses from students for improving/modifying the teaching-learning practices by the faculty according to the stakeholder expectations.

The prevailing system it now completely automated and it produces qualitative as well as quantitative reports, twice in a semester. Faculty feedback indices are calculated for each faculty, course-wise. Cumulative reports, including comments by the students, are also generated by the Information Management System (IMS).

The self-learning model developed by the institution five years ago, based on SWAYAM/NPTEL online courses, has been quite successful and the institute has excelled at national level.

To ensure compliance of quality standards, the IQAC has identified many activities and set their timelines. The idea was to increase the effectiveness of teaching-learning-evaluation, timely completion of all planned routine activities such as curriculum development, alumni/industry connect, student counselling/mentoring, assessments, various feedbacks & their analysis, etc.

In order to encourage timely completion of the above activities by various departments of the institute, a numeric 'Administrative Efficiency Index' (AEI) is computed, such as to reflect the performance of each department, for each of the activities, on a scale of 10. Then the overall AEI for the semester is computed.

Use of MOODLE for a dynamic learning environment to facilitate student centric learning is one of the benchmarks that the institute has set. This was possible due to the practice of computing the MOODLE Working Index (MWI) on a monthly basis, for each department. The MWI periodically monitored the use of MOODLE by faculty for 10 different teaching-learning activities. Now, all faculty, students and staff are familiar with this tool and it is extensively being used.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	MADHAV INSTITUTE OF TECHNOLOGY AND SCIENCE
Address	Madhav Institute of Technology and Science Race Course Road, Gola Ka Mandir
City	Gwalior
State	Madhya Pradesh
Pin	474005
Website	www.mitsgwalior.in

Contacts for Communication					
Designation	**Name**	**Telephone with STD Code**	**Mobile**	**Fax**	**Email**
Director	R. K. Pandit	0751-2409300	7000817534	-	director@mitsgwalior.in
IQAC / CIQA coordinator	Pratesh Jayaswal	0751-2409231	9826561725	-	pratesh_jayaswal@mitsgwalior.in

Status of the Institution	
Institution Status	Grant-in-aid

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minroity institution	No

Establishment Details	
Date of Establishment, Prior to the Grant of	01-07-1957

'Autonomy'	
Date of grant of 'Autonomy' to the College by UGC	16-03-2017

University to which the college is affiliated

State	University name	Document
Madhya Pradesh	Rajiv Gandhi Proudyogiki Vishwavidyalaya	View Document

Details of UGC recognition

Under Section	Date	View Document
2f of UGC	09-10-2013	View Document
12B of UGC	09-10-2013	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	03-07-2022	12	
COA	View Document	04-07-2022	12	

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?	Yes
If yes, name of the agency	National Project Implementation Unit
Date of recognition	13-02-2021

Location and Area of Campus				
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	Madhav Institute of Technology and Science Race Course Road, Gola Ka Mandir	Urban	44.68	59023

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	BArch,Architecture And Planning	60	Passed 10+2 examination with PCM with at least 50 per cent	English	40	22
UG	BTech,Civil Engineering	48	Passed 10+2 examination with Subjects as per AICTE APH	English	156	113
UG	BTech,Electrical Engineering	48	Passed 10+2 examination with Subjects as per AICTE APH	English	157	104
UG	BTech,Electrical Engineering	48	Passed 10+2 examination with Subjects as per AICTE APH	English	78	77
UG	BTech,Electronics Engineering	48	Passed 10+2 examination with Subjects as per AICTE APH	English	156	156
UG	BTech,Electronics Engineering	48	Passed 10+2 examination with Subjects as per AICTE APH	English	78	78
UG	BTech,Computer Science And	48	Passed 10+2 examination with	English	160	157

	Engineering		Subjects as per AICTE APH			
UG	BTech,Computer Science And Engineering	48	Passed 10+2 examination with Subjects as per AICTE APH	English	78	77
UG	BTech,Mechanical Engineering	48	Passed 10+2 examination with Subjects as per AICTE APH	English	78	6
UG	BTech,Mechanical Engineering	48	Passed 10+2 examination with Subjects as per AICTE APH	English	156	78
UG	BTech,Information Technology	48	Passed 10+2 examination with Subjects as per AICTE APH	English	78	78
UG	BTech,Information Technology	48	Passed 10+2 examination with Subjects as per AICTE APH	English	78	77
UG	BTech,Information Technology	48	Passed 10+2 examination with Subjects as per AICTE APH	English	80	79
UG	BTech,Information Technology	48	Passed 10+2 examination with Subjects as	English	78	78

			per AICTE APH			
UG	BTech,Information Technology	48	Passed 10+2 examination with Subjects as per AICTE APH	English	78	77
UG	BTech,Chemical Engineering	48	Passed 10+2 examination with Subjects as per AICTE APH	English	78	7
UG	BTech,Engineering Mathematics And Computing	48	Passed 10+2 examination with Subjects as per AICTE APH	English	78	78
PG	MPlan,Architecture And Planning	24	B.Arch. or B.Plan.	English	18	8
PG	Mtech,Civil Engineering	24	Graduate in Relavent field of Engg. /Technology with at least 50% marks, 45% marks in case of Candidates belonging to SC/ST/OBC (excluding creamy layer) categories of Madhya Pradesh	English	18	2
PG	ME,Civil Engineering	24	Graduate in Relavent field of	English	25	2

			Engg. /Technology with at least 50% marks, 45% marks in case of Candidates belonging to SC/ST/OBC (excluding creamy layer) categories of Madhya Pradesh			
PG	ME,Electrical Engineering	24	Graduate in Relavent field of Engg. /Technology with at least 50% marks, 45% marks in case of Candidates belonging to SC/ST/OBC (excluding creamy layer) categories of Madhya Pradesh	English	25	0
PG	ME,Electronics Engineering	24	Graduate in Relavent field of Engg. /Technology with at least 50% marks, 45% marks in case of Candidates belonging to SC/ST/OBC (excluding creamy	English	25	1

			layer) categories of Madhya Pradesh			
PG	Mtech,Computer Science And Engineering	24	Graduate in Relavent field of Engg. /Technology with at least 50% marks, 45% marks in case of Candidates belonging to SC/ST/OBC (excluding creamy layer) categories of Madhya Pradesh	English	18	3
PG	Mtech,Mechanical Engineering	24	Graduate in Relavent field of Engg. /Technology with at least 50% marks, 45% marks in case of Candidates belonging to SC/ST/OBC (excluding creamy layer) categories of Madhya Pradesh	English	18	1
PG	Mtech,Information Technology	24	Graduate in Relavent field of Engg. /Technology with at least	English	18	0

09-05-2023 11:34:27

			50% marks, 45% marks in case of Candidates belonging to SC/ST/OBC (excluding creamy layer) categories of Madhya Pradesh			
PG	MCA,Master Of Computer Application	24	passed - BCA / B.Sc. (Computer Science) / B.Sc. (IT) / B.E. (CSE) / B.Tech. (CSE) / B.E. (IT) / B.Tech. (IT) or equivalent Degree	English	78	78
PG	MBA,Management	24	Graduate with at least 50% marks and 45% marks in case of SC, ST, OBC (excluding Creamy Layer) category of Madhya Pradesh	English	78	45

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				16				33				69
Recruited	9	2	0	11	11	6	0	17	50	18	0	68
Yet to Recruit				5				16				1
Sanctioned by the Management/Society or Other Authorized Bodies				13				35				96
Recruited	4	0	0	4	1	0	0	1	38	23	0	61
Yet to Recruit				9				34				35

Non-Teaching Staff				
	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				63
Recruited	55	8	0	63
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				18
Recruited	7	4	0	11
Yet to Recruit				7

Technical Staff				
	Male	**Female**	**Others**	**Total**
Sanctioned by the UGC /University State Government				40
Recruited	33	7	0	40
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				3
Recruited	3	0	0	3
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/ LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	19	4	0	2	3	0	52	19	0	99
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	1	0	3	0	0	20	5	0	29
UG	0	0	0	0	0	0	0	0	0	0

Temporary Teachers									
Highest Qualification	**Professor**			**Associate Professor**			**Assistant Professor**		
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/LLD/DM/MCH	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	7	2	0	9
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	10	14	0	24
UG	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/LLD/DM/MCH	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
UG	0	0	0	0	0	0	0	0	0	0

Details of Visting/Guest Faculties				
Number of Visiting/Guest Faculty engaged with the college?	**Male**	**Female**	**Others**	**Total**
	5	2	0	7

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	3534	89	0	2	3625
	Female	1031	25	0	0	1056
	Others	0	0	0	0	0
PG	Male	160	3	0	0	163
	Female	110	1	0	0	111
	Others	0	0	0	0	0

Provide the Following Details of Students admitted to the College During the last four Academic Years

Category		Year 1	Year 2	Year 3	Year 4
SC	Male	145	146	110	141
	Female	32	24	41	33
	Others	0	0	0	0
ST	Male	16	46	25	17
	Female	6	8	6	4
	Others	0	0	0	0
OBC	Male	263	241	174	182
	Female	74	44	42	41
	Others	0	0	0	0
General	Male	657	644	518	450
	Female	252	214	181	191
	Others	0	0	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
Total		1445	1367	1097	1059

2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

Department Name	Upload Report
Architecture And Planning	[View Document](#)
Chemical Engineering	[View Document](#)
Civil Engineering	[View Document](#)
Computer Science And Engineering	[View Document](#)
Electrical Engineering	[View Document](#)
Electronics Engineering	[View Document](#)
Engineering Mathematics And Computing	[View Document](#)
Information Technology	[View Document](#)
Management	[View Document](#)
Master Of Computer Application	[View Document](#)
Mechanical Engineering	[View Document](#)

Institutional preparedness for NEP

1. Multidisciplinary/interdisciplinary:	The NEP action plan from 2020-2021 to 2023-2034 is available at https://web.mitsgwalior.in/images/files/IQAC/initiatives/MajorQualityInitiatives.pdf [1]. Vision Plan for transformation into a holistic multidisciplinary institution ? The flexible curriculum was implemented in the institute for 2017-2021 batch onwards. ? The institute conducted a number of meetings of senior faculty members, HoDs and the ADC of the institute to discuss the plan of action for integration of the basic philosophies of NEP-2020 into the curriculum. ? An institute level committee was then constituted to prepare the 'implementation Policy of NEP-2020'. ? The committee then presented their ideas in a meeting on 6th April 2021. ? A strategic plan on NEP-2020 was prepared and presented in the meeting of the H.R. committee on 03.07.2021. The meeting was chaired by Chairman, H.R. Committee of MITS & then Chairman of National Board of Accreditation (NBA) of the institute, in the presence of experts from IIT & NITs. ? The action plan was revised and then the "NEP-Implementation Policy" was presented and approved in the meeting of the BoG on 31st July 2021, vide Item no 1. ? The institution integrated 'NEP-Action Plan' and implemented it to transform

	itself into a holistic multidisciplinary institution, for 2021-2022 session. [2]. Integration of humanities and science with STEM and provide the detail of programs with combinations ? In addition to the regular credit courses, there is a provision of mandatory audit courses (MAC), value added courses, and open elective courses from Science and Humanities. ? Mini-projects are part of curriculum to enhance project based learning in STEAM courses. [3]. Credit-based courses and projects in the areas of community engagement Environmental education and novel value-based courses have credit weightage. Credit courses are offered on NCC and NSS also. Students are encouraged to undertake projects on societal issues. [4]. Institutional plan for offering a multidisciplinary flexible curriculum with multiple-entry/exit In the action plan, at point no 9 there is provisioning to offer certificate, diploma & Bachelor degree with curriculum development support from institution of eminence, academia and industry persons 9, 13 and 16 programmes are proposed from 2022-23 onwards for consideration in addition to the existing lateral entry scheme. [5]. Enhancement of multidisciplinary research for society's most pressing issues and challenges ? Point no 14 in the action plan describes MoUs and Collaborations for Research Internship. The final year students will be doing "Degree with Research" with industry or academic support from 2022-2023 batch onwards, norms for which are already drafted. ? Point no 14 mentions provisions for travel support for visiting other Research Organizations and Institutions for multi-disciplinary project [6]. Good practice/s of the institution to promote Multidisciplinary/interdisciplinary approach in view of NEP 2020 ? Institute is providing B.Tech in parent discipline with Minor Specialization. ? About 10% credits are from interdisciplinary elective and novel value added courses. ? Interdisciplinary Courses such as 'Data Science' and 'AI & ML' are being offered to core branches for their multi-disciplinary applications in projects etc. ? Mandatory interdisciplinary 'In-House Internships' are being provided to students.
2. Academic bank of credits (ABC):	Initiatives taken by the institution to fulfil the requirement of Academic bank of credits as proposed in NEP 2020 As per the National Education Policy

2020, MITS has onboard Academic Bank of Credits (ABC) scheme established on the lines of the National Academic Depository (NAD), in the month of May 2022 through registration on NAD portal. ABC will enable students to register or commence credit transfer, the final outcomes of credit redemption and issuance of certificates, as well as the compilation of award records, as administered by institute via the NAD Platform. The institute has nominated Dr. Sunita Sharma, Dy Controller Exam as Nodal Officer and Mr. Punit Johari, Assistant Controller, Exam is Verifying Officer of NAD. To begin with, the institute has prepared and uploaded the data of 2021 (2431 No. of records) admitted batch (I and II semester) students for the generation of digital marksheets. The institute data will be live on NAD portal very soon and marksheets will be available in NAD account of the students of 2021 admitted batch. Institute has also generated ABC id of 2021 admitted batch students for effective implementation of ABC policy. b) Whether the institution has registered under the ABC to permit its learners to avail the benefit of multiple entries and exit during the chosen programme? The institute is verified under the ABC and will be able to avail the benefit of multiple entries and exit during the chosen program as soon as the affiliating university guidelines will be available. c) Describe the efforts of the institution for seamless collaboration, internationalization of education, joint degrees between Indian and foreign institutions, and to enable credit transfer. Presently, the institute has collaborated and MOU between the MITS and Symbiosis Institute of Management has been signed for joint MBA degree program through credit transfer system in some courses. Also a certificate course on Human Resource Management in Aviation Industry will be offered in collaboration with International Civil Aviation Organization, Canada. d) How faculties are encouraged to design their own curricular and pedagogical approaches within the approved framework, including textbook, reading material selections, assignments, and assessments etc. The institute faculty is encouraged to design the curriculum of the courses in align with the current demand of the industry through Board of Studies meeting and final approval from Academic Counsel biannually. The institute has adopted Multiple Mode

	Teaching Learning Pattern (MMTLP) to identify innovative teaching modes for different types of syllabus content, enhance skill development and include latest developments in the domain catering to the fast changing technological scenario. e) Describe any good practice/s of the institution pertaining to the implementation of Academic bank of credits (ABC) in the institution in view of NEP 2020. The institute has registered for Academic Bank of Credit in view of NEP 2020 as early bird and started working for transferring marksheets in NAD account of students admitted in year 2021.
3. Skill development:	[1]. Efforts for strengthening the vocational education and soft skills of students: According to the guidelines of the National Skills Qualifications Framework the curriculum was designed to have an emphasis on 'skill development'. ? Provision of 'skill based mini-project' for enhancing domain specific as well as multi-disciplinary application of the knowledge gained. ? Mechanism to evaluate the skill part through PPT presentations and report submissions. ? Faculty Induction Programmes are conducted for domain specific, pedagogical and multi-disciplinary skill enhancement. [2] Programmes to promote vocational education ? in-house summer internships for skill development of students in multi-disciplinary domains from which the students can choose. A mandatory soft-skills development summer internship of 90 hours for II year students. ? On-the job internship of 150 hours after VI semester. ? Full VIII semester internship placement at relevant industry with industry mentor or research project under institute mentor. ? 11% credits assigned for projects & internships where domain related real-world, societal problems are selected. [3] Value-based education to inculcate positivity amongst the learner: ? courses on 'Universal Human Values and Ethics", and "Indian Constitution & Traditional Knowledge". ? The institute has many clubs like "Holistic Health Club", "Yoga Club", "Dance and Music Clubs" etc. which organize lectures by prominent persons and invite experts for workshops on "Sudarshan Kriya" etc. ? meditation club which conducts meditation sessions on alternate days. ? SELP programmes of "Art of Living" are also conducted from time to time. [4] Enlist the institution's efforts to: i. Design a credit structure to

	ensure that all students take at least one vocational course before graduating. The curriculum has provision for mandatory 'Novel value added Courses" from III to VI semester, and there are total 4 credits. Each student has to opt for 01 course in each semester. ii. Engaging the services of Industry veterans and Master Crafts persons to provide vocational skills and overcome gaps vis-à-vis trained faculty provisions. Partial teaching of at least one course by industry expert. iii. To offer vocational education in ODL/blended/on-campus modular modes to Learners. ? The students have to opt for mandatory MOOCs from recognized platforms for some of their open and departmental electives with credit transfer provision. Thus 9-10% of the credits are earned through ODL platform. ? Professional development component in the VIII semester where credits are earned for additional certificates from MOOCs done by students. iv. Skilling courses are planned to be offered to students through online and/or distance mode. The institute is a centre of IIT Delhi virtual labs. Regular workshops are conducted and students are engaged in virtual labs for some of the experiments. [5] Practice followed for the Skill development in view of NEP 2020. Skill Based Projects for effective learning in lab courses. The assigned credit weightage for the skill based project is 20% of the lab course. The faculty design the problems for the students and ensure that students' higher order thinking skills are developed.
4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):	a) Delineate the strategy and details regarding the integration of the Indian Knowledge system (teaching in Indian Language, culture etc,) into the curriculum using both offline and online courses. ? As per NEP guidelines, to promote Holistic Education and Informal Knowledge the "Novel Engaging Courses" (to promote Holistic Education and Informal Knowledge) are the part of curriculum since 2020 admitted batch. As of now, more than 80 NEC Courses have been introduced, including Performing Arts, Physical Health, Health & Hygiene, Arts & Crafts, Language Skills, Home Science under the mentorship of faculty members. Some of NEC courses related to language, culture are: • Hindi Language Skills, • crafts practices in India, • Know your country (History, Culture, Tradition) • Bhagwat Gita ? There are courses on 'Universal Human

Values and Ethics", and "Indian Constitution & Traditional Knowledge". ? The institute has many clubs like "Holistic Health Club", "Yoga Club", "Dance and Music Clubs" etc. which organize lectures by prominent persons and invite experts for workshops on "Sudarshan Kriya" etc. ? There is meditation club which conducts meditation sessions on alternate days. ? SELP programmes of "Art of Living" are also conducted from time to time. b) What are the institutions plans to train its faculties to provide the classroom delivery in bilingual mode (English and vernacular)? Provide the details. The Hindi is commonly used language at Gwalior and nearby places, therefore the faculty and staff members are encouraged and trained to deliver in classrooms in bilingual mode. The Induction programmes for newly recruited faculty are conducted regularly. The faculty members are also encouraged to participate in pedagogical training programmes. c) Provide the details of the degree courses taught in Indian languages and bilingually in the institution. The various programmes running in the Institute are taught in Hindi & English language. d) Describe the efforts of the institution to preserve and promote the following: i. Indian languages (Sanskrit, Pali, Prakrit and classical, tribal and endangered etc.) • The Institute is offering a Novel Engaging Course on Bhagwat Gita to promote the Sanskrit Language and to promote lessons of Bhagwat Gita. ii. Indian ancient traditional knowledge • The Institute has several clubs, society and NSS unit. The member students are engaged in Indian ancient traditional knowledge activities. iii. Indian Arts • Indian Constitution and traditional Knowledge is offered for all the students under Mandatory Audit Course Category. • The Architecture department of Institute is engaged in the promotion of India Arts through design and drafting. iv. Indian Culture and traditions. • The subject Indian Constitution and traditional Knowledge is used to taught about the importance of Indian cultural and traditions. e) Describe any good practice/s of the institution pertaining to the appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course) in view of NEP 2020. • The Institute has developed Online Course on Indian Constitution and Traditional Knowledge. • Subjects are taught bilingually • Dance

	& Garba Completions are organized. • Commemorative days are organized in the Institute.
5. Focus on Outcome based education (OBE):	a) Initiatives to transform curriculum towards Outcome based Education (OBE)? ? The faculty has been trained in National Level courses and workshops on OBE since last seven years. ? The institute has a team of OBE coordinators and one senior professor as OBE manager. ? There is a practice at the institute to conduct in-house sessions by the trained faculty to train the remaining faculty members in CO writing, question paper mapping with COs and Bloom's levels, PO attainment through direct and indirect attainment etc. ? The curriculum is developed based on the Course Outcomes identified according to and in-line with NEP-2020, emphasizing the skills. ? The course content & COs are published on the website and shared with stokeholds. ? The CO attainment, development of the CO-PO matrix, course articulation metrics with mapping proper levels (1,2,3) etc. is monitored by the Board of Studies(BoS), twice a year. ? The BoS also reviews the CO statements, CO-PO targets & attainment, gap analysis along with suggested changes in curricula, teaching/evaluation practices etc. ? The scheme has been modified to map all the POs with proper strength by adding different components. ? Each course has components which map with knowledge (PO1-PO4), Skills (PO-5-PO7, PO11) and attitudes (PO8, PO9, PO12) with different strengths. b) Outcome based education in teaching and learning practices ? The institute follows a student centric teaching-learning model. ? The institute uses a MOODLE (Modular Object-Oriented Dynamic Learning Environment) which is used extensively for uploading all teaching material notes, assignments etc. ? Weekly quizzes are conducted on MOODLE. Assignments are also submitted and evaluated on MOODLE. ? The faculty has been trained to write COs using Bloom's taxonomy, prepare question papers mapping with Bloom's levels and ensuring CO coverage through various assessment methods. ? The lecture plans are prepared using the "Multiple Mode Teaching-Learning Pattern" (MMTLP). The idea is to target the attainment of LOTs as well as HOTs. ? The focus is not just on content delivery but on its application c) Good practice/s pertaining to the Outcome based education (OBE) in view of NEP

	2020. In-line with the NEP concept of "Move Away from high-stake examinations" and unburden the students, examination reforms are implemented and multiple methods of evaluation are in place (Multiple Mode Logical Pattern Examination system (MMLPE). Proper guidelines are in place and end-term examinations are conducted using (i) Traditional pen-paper mode (ii) MCQ mode and (iii) Assignment plus oral mode. This pattern gives the teachers a lot of flexibility to assess the learning outcomes of students and evaluate their ability to "Apply", "Analyse", "Evaluate" and "Design/Create".
6. Distance education/online education:	a) Courses through ODL mode in the institution. ? The institute has implemented 'Credit Transfer from MOOCs" policy for the 2017-2021 batch onwards. ? The Institute NPTEL local Chapter ranks among the top in the nation due to the large number of faculty and students who get "Topper", "Elite", "Gold" etc. certificates every semester. ? About 9% of the total credits are presently earned through MOOCs. ? The institute has already surpassed the target set for 'credit transfer' in the NEP Action Plan. ? Some of the courses are taught in ODL mode and the students can attend from their homes. The lecture recordings are uploaded on MOODLE. ? The 'Skill Enhancement Programme" of the institute and the mandatory audit courses and offered on-line. b) Development and use of technological tools for teaching learning activities and institutional efforts towards the blended learning. ? The institute faculty also prepare MOOCs in the state-of-the-art Digital Studio of the institute, permitting "anytime anywhere' learning format. Virtual labs are also used. ? The weekly quizzes are attempted by the students from the comforts of their homes. ? The provisioning of 'Blended Teaching Learning' under various modes is in place as per the nature of the course. ? Course wise 'Mode of Teaching' is also specified in the scheme structure. On-line as well as off-line teaching is provisioned. The % of each component is calculated and recorded in the scheme. ? There is complete flexibility within this framework and a faculty can take students outside the class, or give some assignments to enhance the learning outcomes. (c) Good practice/s of the institution pertaining to the Distance education/online education in view of NEP 2020. ? Virtual Labs in collaboration

<table>
<tr><td colspan="2">with IIT, Delhi virtual labs ? Digital Studio used for MOOC development by the faculty ? NPTEL Local Chapter of the institute has ranked 2nd among all active chapter in the country during Jan-June 2022 and 25th in July-Dec2022. The Chapter has maintained its position among the top 100 chapter since 2018.</td></tr>
</table>

Institutional Initiatives for Electoral Literacy

1. Whether Electoral Literacy Club (ELC) has been set up in the College?	The Electoral Literacy Club (ELC) is working effectively in the Institute. ELC contains Nodal officer and campus ambassadors from the institute. The role of the Nodal officer is to coordinate the all type of election awareness activities with the help of campus ambassadors. The Nodal officer and campus ambassadors are regularly attending the meeting/ programs organized by election cell at collectorate office Gwalior.
2. Whether students' co-ordinator and co-ordinating faculty members are appointed by the College and whether the ELCs are functional? Whether the ELCs are representative in character?	As per Order No. Estt./2018/1513 dated 30.05.2018 following Campus ambassador and Nodal Officer are appointed: Campus ambassador ? Rohit Singh Rajput (0901CM151041) ? Ritik Jain (0901EC181076) ? Utkarsh Tripathi (0901EC201127) Nodal officer: Shri Deep Kishore Parsediya, Assistant Professor, Dept. of Electronics Engg. The role of campus ambassador is to organize the election awareness activities under the guidance of nodal officer. The role of Nodal officer is to regularly attend the meeting held at Collectorate office Gwalior.
3. What innovative programmes and initiatives undertaken by the ELCs? These may include voluntary contribution by the students in electoral processes-participation in voter registration of students and communities where they come from, assisting district election administration in conduct of poll, voter awareness campaigns, promotion of ethical voting, enhancing participation of the under privileged sections of society especially transgender, commercial sex workers, disabled persons, senior citizens, etc.	1. Organized Bike rally for Election awareness/ SVEEP activities: A Bike Rally from MITS main gate to Railway station via agriculture college on 20th January 2020 at 11:00am, per the order (order no- nirvachan/25-6/134/2020/31 dated 13/01/2020) received from collectorate office. The aim of this rally was to aware the voters regarding their role in the election. The students of 2nd year Electronics and ET were participated in this rally. While, some of the interested students of other branches was also participated in the event. 2. Participated in interaction session on "Limitation of Election Commission & Voter's Expectation" on 05-08-2018 at LNIPE Gwalior: Students of MITS along with Campus

	ambassador and nodal officer have participated in interaction session on "Limitation of Election Commission & Voter's Expectation" on 05-08-2018 at LNIPE Gwalior. Collector and Commissioner and election master trainers have describe the key points of election process. After that mock demonstrations were conducted by SVEEP officers. 3. Oath/pledge ceremony & online quizzes for Election awareness: Students of NSS units MITS have organized the oath/pledge ceremony and online quiz. During Oath/pledge ceremony all the students, faculty and staff members have taken the pledge for Cast their vote/ participate in election process.
4. Any socially relevant projects/initiatives taken by College in electoral related issues especially research projects, surveys, awareness drives, creating content, publications highlighting their contribution to advancing democratic values and participation in electoral processes, etc.	1. Awareness of EVM & VVPAT through demonstration: Aawareness session on "Importance of Voter in Election process" is organized for the faculty, staff & students on 20th November 2019. Dr. S. K. Pradhan and Dr. V. K. Telang have motivated the participants for their voting during election. The aim of this rally wasto aware the voters regarding their role in the election. 2. Interaction/ Awareness session by Dr. S. K. Pradhan & Dr. V. K. Telang: A demonstration of EVM & VVPAT has been organized on 15th April 2019 followed by mock voting for the students.The aim of this activity was to aware the voters regarding working of EVM, VVPAT and voting process.. The students of 3rd year Electronics and ET were participated in this rally. While, some of the interested students of other braches was also participatedin the event. 3. Mock polling/ voting: Mock demonstrations were conducted to explain the election process to various students. The demonstration includes CU and BU detailed and their connection with each other. During mock polling participants have got the idea about function of VVPAT
5. Extent of students above 18 years who are yet to be enrolled as voters in the electoral roll and efforts by ELCs as well as efforts by the College to institutionalize mechanisms to register eligible students as voters.	The students above eighteen years who are to be enrolled as voters are sensitized about democratic rights which include casting votes in elections. We conduct mock demonstration to give the to aware the voters regarding working of EVM, VVPAT and voting process , experience-based learning of the democratic setup. We also conduct motivational programmes which create an awareness regarding electoral procedures.

Extended Profile

1 Program

1.1

Number of programs offered year-wise for last five years

2021-22	2020-21	2019-20	2018-19	2017-18
27	26	20	21	25

File Description	Document
Institutional data in prescribed format	View Document

1.2

Number of departments offering academic programmes

Response: 10

2 Students

2.1

Number of students year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
4802	4469	4276	4292	4199

File Description	Document
Institutional data in prescribed format	View Document

2.2

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

2021-22	2020-21	2019-20	2018-19	2017-18
1017	949	1022	1001	848

File Description	Document
Institutional data in prescribed format	View Document

2.3

Number of students appeared in the examination conducted by the Institution, year-wise during the last five years

2021-22	2020-21	2019-20	2018-19	2017-18
4757	4451	4276	4292	4199

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

2.4

Number of revaluation applications year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
41	0	36	43	39

3 Teachers

3.1

Number of courses in all programs year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
796	740	630	640	662

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

3.2

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

2021-22	2020-21	2019-20	2018-19	2017-18
142	154	218	219	133

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

3.3

Number of sanctioned posts year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
223	267	265	268	169

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

4 Institution

4.1

Number of eligible applications received for admissions to all the programs year-wise during last five years

2021-22	2020-21	2019-20	2018-19	2017-18
1445	1367	1097	1059	1144

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

4.2

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

2021-22	2020-21	2019-20	2018-19	2017-18
674	622	493	497	526

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

4.3

Total number of classrooms and seminar halls

Response: 59

4.4

Total number of computers in the campus for academic purpose

Response: 615

4.5

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

2021-22	2020-21	2019-20	2018-19	2017-18
1555.66	1314.75	1882.07	1827.40	1283.31

4. Quality Indicator Framework(QIF)

Criterion 1 - Curricular Aspects

1.1 Curriculum Design and Development

1.1.1 Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which is reflected in Programme outcomes (POs), Programme Specific Outcomes(PSOs) and Course Outcomes(COs) of the Programmes offered by the Institution.

Response:

The Institute has been granted academic autonomy from RGPV, Bhopal (State Technical University) since 2002 and UGC has also given the autonomous status from 2017. As a consequence, the curriculum is being revised on regular basis through the Board of Studies (BoS), which is confirmed by the Academic Council. The curriculum development is aligned with the local, regional, national and global needs and revision of curriculum also involves feedback from various stakeholders. The curriculum is dynamic and the courses are as per the current market and industrial need.

The institute has implemented Flexible Curriculum(as per the AICTE model curriculum) from the academic session 2017-18 onwards and the institute has also concluded its action plan for the effective integration of National Education Policy 2020, with focus on skill development, creativity, innovation and holistic development. The curriculum offers the provision of Minor Specialization and Honors by additionally earning 20 credits through SWAYAM/NPTEL platform based courses. These courses are approved by the respective BoS and offered to the students who are opting degree with honours or minor specialization. Moreover, the arrangement of Departmental Elective and Open Category courses through SWAYAM/NPTEL platform with credit transfer is in place and under this arrangement, the total number of 20,123 Credits have already been transferred to the transcript of students. To ensure the holistic development of students, Novel Engaging Courses (with the arrangement of four credits in the overall UG programme) in diversified areas have been included in the curriculum such as - Environment protection, Bhagwad Gita- An Introduction. The curriculum also recognizes attainments in the co-curricular activities through credits under its "Professional Development" component.

Further, to ensure that the students have the required domain knowledge, skills and attitude following factors are considered: (i) Reports of various reputed organizations like NASSCOM, Sustainable Development Goals by UN etc. (ii) Model curriculum prescribed by AICTE, (iii) Mapping with Program Outcomes (PO), (iv) Suggestions by industry experts and alumni, (v) Syllabi of various competitive exams like GATE, IES, etc.Curricula addresses the following national missions: Digital India (Incorporation of MOOCs & digitalpedagogy in the curriculum), Unnat Bharat Abhiyan, Women Empowerment, andSkilling India (provision of Skill Based Mini Project) .

The provision to opt for Full Semester internship or major project in the final semester of UG programmes is in place. Many students have already completed their internships with good stipend and placement offer in the same industry after the internship.

The curriculum and relating practices are in line with the Programme Outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs) of the various Programmes.The curriculum alsoincludes recent technologies and the opportunities existing at regional and global level with all

necessary elements.

The Institute observes the attainments of PEO, PO& PSO for respective programmes which in turn relates to Vision and Mission of the Institution and Department as well.The outcomes as statedhave been integrated in curriculum and displayed on the Institute website to facilitate access to variousstakeholders, including the teachers and students.

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

1.1.2 Percentage of Programmes where syllabus revision was carried out during the last five years.

Response: 100

1.1.2.1 **Number of all Programmes offered by the institution during the last five years.**

Response: 27

1.1.2.2 **How many Programmes were revised out of total number of Programmes offered during the last five years**

Response: 27

File Description	Document
Minutes of relevant Academic Council/BOS meeting	[View Document](#)
Details of program syllabus revision in last 5 years(Data Template)	[View Document](#)
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

1.1.3 Average percentage of courses having focus on employability/ entrepreneurship/ skill development offered by the institution during the last five years

Response: 90.71

1.1.3.1 **Number of courses having focus on employability/ entrepreneurship/ skill development year-wise during the last five years..**

2021-22	2020-21	2019-20	2018-19	2017-18
723	677	585	581	580

File Description	Document
Programme / Curriculum/ Syllabus of the courses	[View Document](#)
Average percentage of courses having focus on employability/ entrepreneurship(Data Template)	[View Document](#)
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

1.2 Academic Flexibility

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

Response: 43.16

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

Response: 492

1.2.1.2 **Number of courses offered by the institution across all programmes during the last five years.**

Response: 1140

File Description	Document
Minutes of relevant Academic Council/BOS meetings	[View Document](#)
Institutional data in prescribed format	[View Document](#)
Link for Additional Information	[View Document](#)

1.2.2 Percentage of Programmes in which Choice Based Credit System (CBCS) / elective course system has been implemented (Data for the latest completed academic year).

Response: 100

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

Response: 27

File Description	Document
Minutes of relevant Academic Council/BOS meetings	[View Document](#)
Institutional data in prescribed format	[View Document](#)
Link for Additional Information	[View Document](#)

1.3 Curriculum Enrichment

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

Response:

For the all-round development of a student it is essential that moral values, professional ethics, a sensitivity towards societal issues and awareness about the sustainable development are integrated into the curriculum. After all, the future engineers will be shaping the nation in the coming years.

While preparing the syllabi at MITS all these above considerations are properly addressed. The mandatory courses like Energy, Environment, Ecology & Society, Biology for Engineers (Mandatory Audit Course), Cyber security, Ethics, Economics, Entrepreneurship & Management, Indian Constitution & Traditional Knowledge (Mandatory Audit Course), Disaster Management, Intellectual Property Rights (IPR), Project Planning & Financing, having orientation towards the above issues were offered to all the undergraduate engineering students. The additional mandatory courses offered to the 2020-2021 admitted batch are Universal Human Values & Professional Ethics(UHVPE) at VII semester.

The gender sensitization cell of the institute is constantly conducting activities, poster competitions and expert sessions to sensitize the students about this important issue.

To ensure the holistic development of students, Novel Engaging Courses (NECs)in diversified areas have been included in the curriculum w.e.f. 2020-2021 batch. The courses are Environment protection, Bhagwad Gita- An Introduction, Computational Thinking for Problem Solving, Know Your Country: History, Culture & Traditions, Preliminary Journalism Skills, Hindi Language Skills, Sculpture Making, Innovation: From Creativity to Entrepreneurship. These Novel Engaging Courses have been facilitated with the arrangement of four credits in the overall UG programme.

A wide range of NECs are offered by the institute, out of which students can select one course of their choice in III, IV, V and VI semesters respectively to get total 4 credits.

The NECs provide 'Activity Based Learning' in an interdisciplinary environment and permits (i) multi-disciplinary interactions of students with students of other disciplines as well as (ii) multi-disciplinary interactions of students with faculty of other disciplines.

The following is a summary of number of courses offered and number of courses selected by students. The list of courses is attached as additional information.

Summary of Novel Engaging Courses (NECs) offered/selected by students

Session	July-December 2021	January-June 2021	July-Dec 2022
Number of NECs with registration	33	44	72
Number of NECs offered	38	87	104

File Description	Document
Upload the list and description of the courses which address the Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum	View Document
Link for Additional Information	View Document

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

Response: 225

1.3.2.1 **How many new value-added courses are added within the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
110	47	40	28	0

File Description	Document
List of value added courses (Data Template)	View Document
Brochure or any other document relating to value added courses	View Document

1.3.3 Average Percentage of students enrolled in the courses under 1.3.2 above.

Response: 39.13

1.3.3.1 **Number of students enrolled in subject related Certificate or Add-on programs year wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
4091	2090	1875	851	0

File Description	Document
List of students enrolled	[View Document](#)
Any additional information	[View Document](#)

1.3.4 Percentage of students undertaking field projects/ internships / student projects (Data for the latest completed academic year)

Response: 61.25

1.3.4.1 **Number of students undertaking field projects / internships / student projects**	

Response: 2941

File Description	Document
List of programs and number of students undertaking field projects / internships / student projects (Data Template)	[View Document](#)

1.4 Feedback System

1.4.1 Structured feedback for design and review of syllabus – semester-wise / year-wise is received from 1) Students, 2) Teachers, 3) Employers, 4) Alumni

Response: A. All 4 of the above

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

1.4.2 The feedback system of the Institution comprises of the following :

Response: A. Feedback collected, analysed and action taken and report made available on website

File Description	Document
Any additional information	[View Document](#)
URL for stakeholder feedback report	[View Document](#)

Criterion 2 - Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 Average Enrolment percentage (Average of last five years)

Response: 86.95

2.1.1.1 **Number of students admitted year-wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
1445	1367	1097	1059	1144

2.1.1.2 **Number of sanctioned seats year wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
1754	1605	1268	1187	1251

File Description	Document
Institutional data in prescribed format (Data Template)	[View Document](#)
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

2.1.2 Average percentage of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy) during the last five years (exclusive of supernumerary seats)

Response: 81.17

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

2021-22	2020-21	2019-20	2018-19	2017-18
537	510	401	420	412

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

2.2 Catering to Student Diversity

2.2.1 The institution assesses the learning levels of the students and organises special Programmes for advanced learners and slow learners

Response:

Institute has well established teaching and learning processes based on the philosophy of Outcome Based Education therefore the issues related to slow learners are addressed by conducting remedial classes. Later, during the COVID-19 pandemic period, the institute identified the digital slow and fast learners based on following criteria:

1. **The fast digital learners were those students who were found to attend almost all classes (2-3 per week per course), appear for all quizzes and were submitting all assignments regularly.**

2. **The medium level digital learners were those students who are attending at least one online class per course per week, and submitting assignments regularly and appearing for quizzes**

3. **The slow digital learners were those students who are not attending any online classes or attending less than 10% of classes, and not submitting assignments/quizzes**

After COVID- 19 Lockdown period, Departments conducted workshop **on "Addressing the Special Needs of Slow and Advanced Learners through Teaching-Learning"** during the mid of Jan-June 2022 sessions to discuss the status of ongoing efforts to address the special needs of slow and advanced learners and to propose solutions/measures to further uplift the learning level of slow and advanced learners.Following topics were discussed during the workshop:

- Interactive doubt clearing classes
- Needs of slow learners through question/answer model
- Personalized attention through phone call/whats app/email etc as per the need
- Guidance sessions related to examinations
- Attending to any other special needs as per the response/feedback received
- Fast learners & synchronous learners are motivated to help learners with difficulties

Based on the outcome of the workshop, some guidelines were proposed to support the learners of different category:
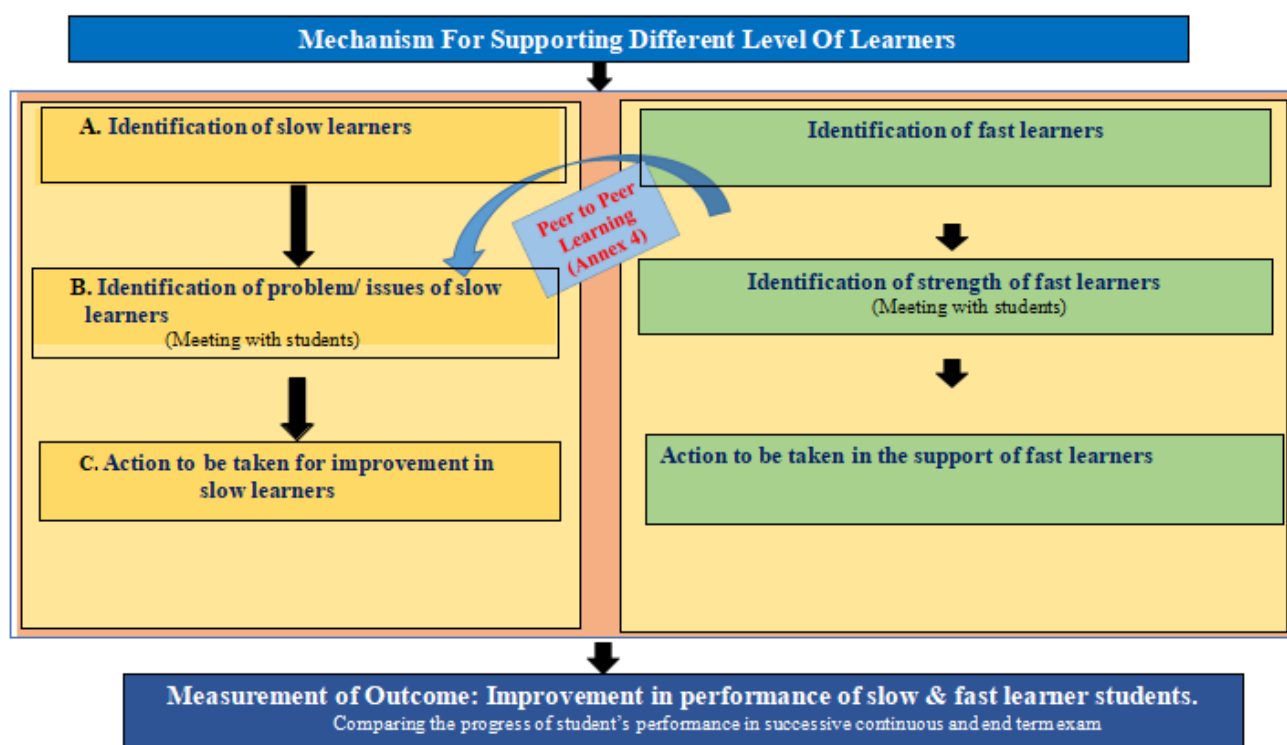
A. Criteria for Identification of Learning Levels of students:

I. **Fast /Advanced learners** are identified as the ones who have

1. More than 70% marks in mid sem exam
2. Attends all classes,
3. Submits all assignments and
4. Appeared for all weekly quizzes for all courses.

II. **Medium level learners** were those who

1. Scored marks between 65-74%
2. attended at least one class per course per week,
3. submitted/appeared for at least 50% of assignments/quizzes.

III. **Slow learners** were those students who were not regular in attending the classes and scored just passing marks or less.

B. Identifying the issues related to poor-performing students

Course faculty conduct meeting with various levels of Learners to understand the issues related to poor performance in continuous assessments.

C. Action Taken for different categories of Learners:

I. Activities conducted for slow learners:

1. Remedial classes
2. Unit wise question bank based on previous year question papers

3. Extra quizzes for practice
4. Extra assignments for practice
5. Virtual labs for better understanding of course

II. Activities conducted for Fast/Advanced learners

1. Higher level of learning through assignments/ quizzes (GATE/IES/PSU exam based).
2. Virtual labs for better understanding of course
3. Motivation for learning through MOOC and earning SWAYAM/ NPTEL certificate.
4. Motivation for opting Minor Specialization and Honours degree.
5. Motivation for participation in Hackathon
6. Support in Placements & career growth through workshops and Alumni   interaction.
7. Support in higher education & career growth through Research Internship Scheme and publication of research papers

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

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

Response: 33.82

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

Institute has implemented flexible curriculum as per the framework proposed by AICTE and is committed to provide student centric learning to the students by using following methodologies:

1. **Experiential Learning**

1.1 Projects :

- **Skill based Mini Project**: Skill based mini projects are assigned by course faculty based on the practical exposure of course and guide the students.
- **Minor Project**

- **Major project/ Dissertation**: Major Project is carried out by final year students under a guide. The discussions between guide and student, continuous presentations made during the semester make the student interactive and open minded

1.2 Industry Visits: Regular industry visits are conducted by the departments to provide the students with an opportunity to learn practically through interaction, working methods and employment practices and provide students with an insight into the corporate world.

1.3. Guest Lectures by Industry Experts: Some content of the courses are covered by the experts from industry to encourage students to participate in experiential learning, training, upskilling, motivate for entrepreneurship and extension activities through mentoring."

1.4 Field Visits/Survey: Students are taken for field visit to nearby places as per the requirement of the course.

1.5 Participation of students in competitions: Students are promoted to participate in local, regional, national level activities and marks are awarded based on the participation in activities throughout the degree duration under Professional Development Course.

1.6. Novel engaging Courses: Activity based Courses (88 numbers, presently) on Physical Health, Health & Hygiene , Art and Culture, Personality development etc are offered to UG students for their holistic development.

2. Participative Learning Methodologies

2.1 **Group activities** like Skill Based Mini Project, practicals, and workshop practices are carried out.

2.2 NSS activities: Students contribute to society through participation in NSS activities throughout the year.

2.3. NCC and Sports Activities: Institute has an independent technical unit of NCC named 3 MP TEC (I).

https://web.mitsgwalior.in/life-at-mits/student-activities/ncc

https://web.mitsgwalior.in/life-at-mits/student-activities/sce

2.4 Club and Society Chapter Activities:https://web.mitsgwalior.in/life-at-mits/student-activities/societies-clubs

2.5 Summer Internship Programs:Three mandatory internships of 60hrs, 90 hrs and 150 hrs are conducted for the UG II, III and IV year students respectively.

2.6 Seminar: Seminar presentations are made by students on assigned topics to enrich their learning experience, communication skill and life long learning.

2.7 Interactive Classes: Flip classes are conducted as per the lecture plan and discussions are made with students on the topic shared in advance.

3. Problem Solving Methodologies

3.1 Creative Problem Solving Course: In UG VII semester, students are asked to deal with current problems of society by proposing innovative solution approaches under the course entitled as Creative Problem Solving.

3.2 Research: Faculty guide the Students of PG and UG programs to carry out the Dissertation/Major project on various topics and present their   solutions.

3.3 Skill Based Mini Project/Minor Project: Skill based mini projects of all practical based courses and Mini projects are designed to solve open ended problems.

3.4 **Quiz and Assignments** : Weekly/fortnightly quizzes and assignments are allotted to students for developing problem solving abilities

3.5 **Conduction of Tutorial Classes**

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

2.3.2 Teachers use ICT enabled tools including online resources for effective teaching and learning process.

Response:

In the institute, use of ICT enabled tools is common practice followed for teaching learning to make students techno-friendly and cope up fast growing technological demands. The faculty members are combining technology with traditional mode of teaching to make the teaching effective and efficient to students by using following ICT facilities:

1. Projectors- LCD projectors are available in different classrooms/labs

2. Interactive Boards:Interactive Boards are available in all smart class rooms

3. Desktop and Laptops- Arranged at Computer Lab and Faculty cabins all over the campus.

4. SWAYAM Prabha Connection- One SWAYAM Prabha Connection is avaialble in each department.

5. MOOC centre- It is digitally equipped with mike, projector, cameras and computer system.

6. Online platforms viz, Zoom, Google Meet, Microsoft Team,

7. MOOC Platform (NPTEL, Coursera,)

8. Digital Library resources: **Library is automated using Integrated Library Management System (ILMS)** Name of ILMS Software : Koha

```
Nature of Automation            : Fully
```

```
Version                    : 3.18


Year of Automation         : 2014
```

Use of ICT by Faculty for teaching learning activities:

1. **The practice of using** ICT enabled tools like as mentioned above have been adopted by faculty to enhance teaching-learning process by
2. **Online platforms** like, zoom, google meet, teams are used for the conduction of classes to implement remote teaching-learning activities.
3. **LMS (MOODLE)** has been used by all faculty members for teaching learning and assessment processes since August 2017. For more details see http://moodle.mitsgwalior.in/
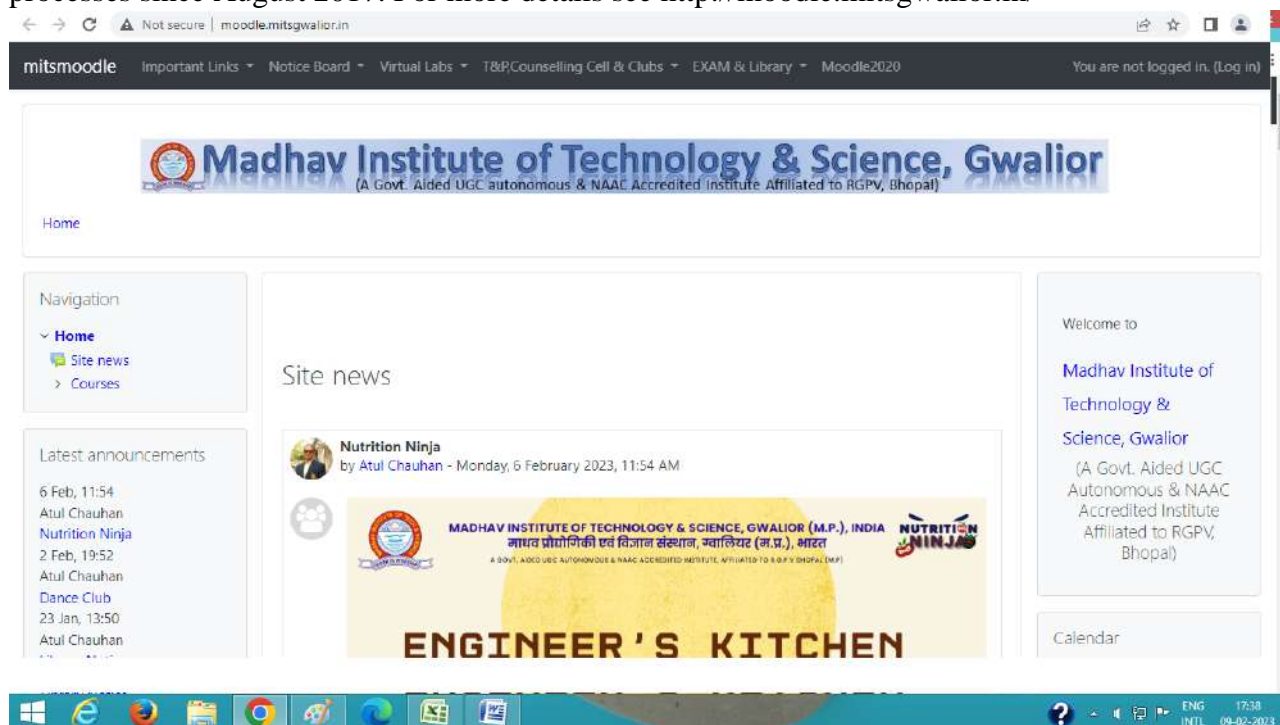
4.
5. **PowerPoint presentations**- Faculties are encouraged to use power-point presentations in their teaching by using LCD's and projectors. They are also equipped by digital library, online search engines and websites to prepare effective presentations.
6. **Industry Connect**- Conclave Centre are digitally equipped where guest lectures, expert talks and various competitions are regularly organized for students.
7. **Online quiz**- Faculties prepare online quiz for students after the completion of each unit on MOODLE.
8. **Online Classes**- During pandemic, Online classes were conducted with the help of Zoom / Google meet applications .
9. **Video lecture**- Recording of video lectures is made available to students for long term learning and future referencing. The links of video lectures were provided through MOODLE.
10. **Online competition**s- Various club activities, finishing school activities, Project presentations,, paper presentations etc. are being organized with the help of various Information Communication Tools.https://web.mitsgwalior.in/life-at-mits/student-activities/societies-clubs

11. **Conduction of Seminars, Workshops, conferences**- ICT tools are us-ed for conducting workshops Seminars, Workshops, Conferences, STPs, FDPs etc.
12. **Conduction of Virtual labs**: MITS has been designated as the NODAL center of Virtual Labs (An Initiative of Ministry of Education under the National Mission on Education through ICT) from 21st July ,2020 onwards in association with IIT-Delhi. During the pandemic years, the labs were conducted through virtual mode by recording the experiments and then demonstrated the same with the students during practical classes. The link of recorded practical classes of electrical engineering department is available on following link:https://www.youtube.com/@mitselectricalengineeringd5524

File Description	Document	
Provide link for webpage describing ICT enabled tools including online resources for effective teaching and learning process	[View Document](#)	
Link for Additional Information	[View Document](#)	

2.3.3 Ratio of students to mentor for academic and other related issues (Data for the latest completed academic year)

Response: 41.04

2.3.3.1 **Number of mentors** ?????????????? ???????

Response: 117

File Description	Document	
Upload year wise, number of students enrolled and full time teachers on roll	[View Document](#)	
Circulars pertaining to assigning mentors to mentees	[View Document](#)	
Link for additional information	[View Document](#)	

2.3.4 Preparation and adherence of Academic Calendar and Teaching plans by the institution

Response:

Dean, Academics of the institute prepares Academic Calendar in the beginning of the Academic year with the consultation of Director, Dean, Student Welfare and HoDs . Academic calendar contains the relevant information regarding the semester registration, commencement of teaching session, vacations, dates of mid semester examination , end semester examination,proficiency test, internship and academic audits etc. The academic calendar is prepared so that teachers and students should know all the activities well in advance and disseminated to all stakeholders through hard as well soft copies. The calendar is strictly followed. Even during the pandemic times, all academic activities, mid-semester examinations, quizzes for

continuous assessment, In-House Summer Internship Programmes, Finishing School, Final year internship, employability skill training, remedial classes etc. were conducted as per schedule. The departments, and other concerned sections plan their activities as per the academic calendar

Except the first year, which is admitted through the centralized state/central government admission process, which is beyond the control of the institute, rest all classes were started as per schedule announced earlier. Even the examination and result declaration process was completed within time.

Following activities were completed as per the timelines available in the academic calendar.

S NO.	TERMS	Odd Semester	Eve
1.	Commencement of Class	As per time lines	As
2.	Teaching End	As per time lines	As
3.	Mid sem Exam-I	As per time lines	As
4.	Mid sem Exam-II	As per time lines	As
5.	Exam Form Submission	As per time lines	As
6.	Commencement of End Sem Exam	As per time lines	As
7.	Declaration of Results	As per time lines	As
8.	Practical Exam	As per time lines	As
9.	Internship Program	As per time lines	As

Teaching plans

All faculty members prepare teaching plans as per the time table prepared by the department and upload on the MOODLE for students' reference.The course faculty prepare lecture plan as per Multiple Mode Teaching Learning Pattern (MMTLP). The purpose of said teaching plan is

1. To identify innovative teaching modes for different types of syllabus content
2. To enhance skill development through different modes of teaching-learning
3. To include latest developments in the domain catering to the fast changing technological scenario
4. To introduce a global perspective into the course.

The teaching plan for each course visualizes the plan of the teacher to make each class more informative, interesting, analytical and resourceful and same is available on the MOODLE page of faculty members for reference.

File Description	Document
Upload Academic Calendar and Teaching plans for five years	View Document
Link for 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: 72.81

File Description	Document
Year wise full time teachers and sanctioned posts for 5 years(Data Template)	[View Document](#)
List of the faculty members authenticated by the Head of HEI	[View Document](#)
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

2.4.2 Average percentage of full time teachers with Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt. during the last five years (consider only highest degree for count)

Response: 37.11

2.4.2.1 **Number of full time teachers with *Ph.D./D.M/M.Ch./D.N.B Superspeciality/D.Sc./D'Lit.* year wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
79	58	62	64	46

File Description	Document
Institutional data in prescribed format (Data Template)	[View Document](#)
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

2.4.3 Average teaching experience of full time teachers in the same institution (Data for the latest completed academic year in number of years)

Response: 9.67

2.4.3.1 **Total experience of full-time teachers**

Response: 1373.07

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

2.5 Evaluation Process and Reforms

2.5.1 Average number of days from the date of last semester-end/ year- end examination till the declaration of results year-wise during the last five years

Response: 16.16

2.5.1.1 **Number of days from the date of last semester-end/ year- end examination till the declaration of results year wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
5.4	30	2	27	16.38

File Description	Document
Institutional data in prescribed format (Data Template)	[View Document](#)
Any additional information	[View Document](#)
Link for Additional Information	[View Document](#)

2.5.2 Average percentage of student complaints/grievances about evaluation against total number appeared in the examinations during the last five years

Response: 0.73

2.5.2.1 **Number of complaints/grievances about evaluation year wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
41	0	36	43	39

File Description	Document
Number of complaints and total number of students appeared year wise	[View Document](#)
Link for Additional Information	[View Document](#)

2.5.3 IT integration and reforms in the examination procedures and processes including Continuous Internal Assessment (CIA) have brought in considerable improvement in Examination Management System (EMS) of the Institution

Response:

Integration in Exam

Institute has a well-established & efficient Examination Management System (EMS) where processes related to Pre Examinations, conduct of examinations, and Post Examination activities are controlled, conducted & monitored by the Examination Cell.

The automated Integrated Management System and Examination Control Software System has following features:

1. Enrolment and registration of students.
2. Attendance Verification of students by HoDs for appearing in exam.
3. Exam form filling by students
4. Availability of admit card of exam
5. Entering marks of different types of evaluation components. Flexible to handle Elective, Open Category and Audit courses.
6. Support for calculating Grades and SGPA/CGPA.
7. Student Tracking.
8. Preparation of result
9. Compilation and Declaration of Results.
10. Printing of provisional degrees and migration certificate.
11. Generation of reports
12. Online Semester/Module Fee Payment
13. Continuous internal assessment system
14. Applying for Revaluation process

Reforms in the examination procedures and processes

The automation has resulted in an extensive improvement in the efficiency and transparency of the Examination Department and other stakeholders such as teachers and has also provided an effective method for parents and students to track performance.

1. **Examination procedures:**

Continuous Assessments (CA): This help students to improve their performance and provide enough

scope to the teachers to monitor the progress learning of students on a regular basis.

(i) Theory courses: Two mid sem exam in a semester, quizzes, assignments

(ii) Practical courses: viva-voce and Skill based mini project

End term evaluation:

1. Theory Courses: (i) End sem exam (ii) Course proficiency.
2. Practical Courses: End Term Exam

2**. Multiple Mode Examination:** (i) MCQ based (ii)Assignment plus Oral, (iii)Pen and Paper based on the nature of the courses.

3**. Assessment through Rubrics:** For the continuous assessment of Practical courses, rubrics are used and shared with the students on regular basis to make them aware about their strength and weakness in various parameters of assessment of a course.

4**. Credit transfer through MOOC platform**: Students can opt to earn credits of elective/open category courses through online offerings such as SWAYAM / NPTEL/Other MOOC platforms.

5. **Degree with Honors or Minor Specialization:** In addition to above, if any student earns additional twenty credits through MOOC platforms, then these credits are considered for awarding UG degree with Minor Specialization/Honors.

6**. Online Viva-Voce Examination**: Provision has been made to conduct viva-voce examinations through video-conferencing for PG dissertation viva. This has facilitated the external experts to be engaged in conduction of external examination from distant places in no time and allowed fast declaration of results.

7**. Setting of question paper based on OBE:** As per the guidelines of AICTE exam reform policy and with the implementation of Outcome based Education in the institute, the questions of mid sem and end sem exams are mapped with defined Course Outcomes and Bloom's Level of Learning.

8**. Transparency in Evaluation System:** The evaluated Answer Scripts are shown to the desiring students, if students found some Grievance after declaration of result.

9**.** Evaluation Criteria for Professional Development Course and Skill Based Mini Project, Self Study/ Seminar is framed as per the nature of the course

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

2.6 Student Performance and Learning Outcomes

2.6.1 Programme and course outcomes for all Programmes offered by the institution are stated and displayed on website and communicated to teachers and students.

Response:

MITS has adopted outcome based education with the implementation of flexible curriculum since 2017. Program outcomes of each department are framed in line with graduate attributes defined by NBA after attaining consensus of all faculty members and other stakeholders of the department and through SWOT analysis. The committee also discusses in detail, the mapping of course outcomes with program outcomes and program specific outcomes. The mechanism of widely propagateting and publicize in program outcomes among the students and teachers is as follows:

1. Institute Website: The program outcomes are displayed by each department on their respective web page of the institute website.
2. Curriculum booklet: Program outcomes are written at the beginning of the curriculum book
3. Class rooms
4. Department Notice Boards
5. Laboratories
6. Department Corridors
7. Student Induction Programs: HoD and class coordinators create awareness on PO, PSO and CO during the orientation program conducted at the beginning of each semester.
8. Meetings/ Interactions with stakeholders
9. Faculty meetings: Director and Dean, Academics emphasize on the attainment level of Program outcomes and strategies to fill the gap to achieve the target.
10. Professional Body meetings
11. HoD cabin

Course Outcomes (COs) are framed at Department level. The department OBE coordinator with the course experts frames the course outcome of their respective subjects using the guidelines for writing course outcomes. The approved COs are then included in the syllabus which are discussed in the Board of Studies meeting for approval, if necessary, the COs are modified and re-framed by the course committee members. Changes in COs are made in the syllabus appropriate places and syllabus is prepared.

As all the teachers are member of Board of Studies, so finalizes COs are communicated to each faculty in Board of Studies presentations and their suggestions are also discussed in course committee meetings.

Course Outcomes (COs) for all courses are communicated to teachers and students by various means:

1. The OBE coordinator of each department mentions the significance of Outcome Based Education to all students during Orientation program conducted at the beginning of each semester. COs are communicated to the students by the class coordinator and other course faculty members.
2. Also each faculty discusses the importance of CO during the introduction class itself.
3. COs along with lesson plan are uploaded on MOODLE.
4. Also, in the beginning of each lecture the learning outcomes of the topic are also focused. During the commencement of each unit and after the completion of the unit, the course outcomes are

reviewed & discussed with students.

File Description	Document
Upload 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 programme outcomes and course outcomes are evaluated by the institution.

Response:

- **Direct Assessment Methods**

1. Continuous Assessment: COs are assessed through mid-term examination, quiz, sessional & Assignment and Lab records. The CO is mapped against each question of quiz and assignment.
2. For each lab, seminar, project work, rubric based assessment is used where each rubric is mapped with the CO, PO & PSO.
3. Semester-end Theory Examinations: The questions in semester end examinations are tested pertaining to all COs, in varying Blooms Taxonomy Levels.
4. contributions of COs are assessed in high, moderate and low levels, towards the attainment of POs/PSOs.

- **Indirect Assessment Methods:**

1. Course End Survey: Taken from the students at the completion of course.
2. Exit survey
3. Alumni Survey
4. Employer Survey

- **Measuring CO attainment:**

1. CO Attainment is measured in terms of 'reference attainment levels' against a 'benchmark' defined by the institution. In the beginning, the institute has selected the Benchmark as 60% of maximum marks.
2. The Reference attainment level was decided subject wise. For example for the subject of Engineering Mathematics, the reference attainment are taken as:

Level 1(Satisfactory): 55% students scoring more than benchmark

Level 2 (Moderate): 65% students scoring more than benchmark

Level 3 (Substantial): 70% students scoring more than benchmark

1. In the next step, the target attainment is set as 2. So if 65% students score more than the set Benchmark i.e. the attainment level, then CO attainment is achieved as 2 is the defined target level.
2. As part of continuous improvement, the set target attainment is increased if it is attained in two successive years. Similarly, the reference level may also be raised as a part of continuous improvement.
3. The overall CO attainment level of a course outcome is calculated as weighted sum of attainments obtained by each assessment tools as the rubrics given below:
4. Direct CO attainment=0.7x CO attainment through End Sem Exam + 0.2x CO attainment through Mid Sem Exam + 0.05 x CO attainment through Quiz + 0.05x CO attainment through assignments
5. Indirect CO attainment=0.5* attainment through student feedback+ 0.25*Course End Seminar +0.25* attainment throughone minute paper writing
6. Overall CO attainment Level=0.8* Direct CO attainment+0.2* Indirect CO attainment

- **Measuring PO/PSO Attainment:**

Attainment of POs and PSOs is computed by using direct and indirect assessment methods. The direct PO and PSO assessment is through course outcomes attainment, whereas indirect assessment is based on the survey/ feedback obtained from stakeholder.

Process for Direct POs, PSOs Assessment:

1. Using CO-PO & CO-PSO matrix for each course, the POs, PSOs attainment for given CO attainment in a course is computed for all the courses.
2. The average of PO attainment in individual Courses is the final direct PO/PSO attainment in the level of 1, 2 & 3.

Process Indirect Assessment Tools:

1. Feedback and survey questionnaire with score/level for each question is prepared for all stakeholder.
2. Alumni feedback particularly who has graduated within the 3-4 years of current academic year.
3. Industrial Feedback from industry persons.
4. Graduate Exit Feedback by the students.

Overall PO/PSO attainment: The Overall PO/PSO attainment is calculated using the rubric:

PO/PSO Attainment (Overall) = 0.8xDirect Attainment + 0.2x Indirect Attainment

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

2.6.3 Pass Percentage of students(Data for the latest completed academic year)

Response: 97.23

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

Response: 1017

2.6.3.2 **Total number of final year students who appeared for the examination conducted by the Institution.**

Response: 1046

File Description	Document
Upload List of Programmes and number of students passed and appeared in the final year examination(Data Template)	[View Document](#)
Any additional information	[View Document](#)
Link for the annual report	[View Document](#)
Link for additional information	[View Document](#)

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process

Response: 3.36

File Description	Document
Upload database of all currently enrolled students	[View Document](#)

Criterion 3 - Research, Innovations and Extension

3.1 Promotion of Research and Facilities

3.1.1 The institution's Research facilities are frequently updated and there is a well defined policy for promotion of research which is uploaded on the institutional website and implemented

Response:

- As the focus areas, societal needs and expectations are changing very fast The research facilities in the institute are frequently updated.
- The Board of Governors take a keen interest in research outcomes and take necessary steps for the enhancement of a research culture in the institute. There is a well-documented policy for promotion of research, approved by the BoG in their meeting on 22nd June 2022. The policy is reviewed from time to time.
- The Institute website provides access to its clearly stated research policy.
- With full support, administrative, financial, infrastructural and human resource, from the institute, the following new initiatives were successfully implemented/completed/ and/or are ongoing, post accreditation. .

  - Seed money for research to faculty members
  - Awarding faculty members who publish papers in indexed journals
  - Conduction of workshops on research methodology, how to write research papers etc.
  - Research internship to final year students under faculty mentorship
  - Plagiarism guidelines for all documents, papers, synopsis, conference proceedings, project reports, thesis/dissertations etc.
  - The Academic Council approval for awarding 'Degree with Research' (to groom young engineers for research)
  - Mandatory publication of one research paper for students undertaking project work for the duration of one full semester
  - Establishment of dedicated research groups and centres
  - Conduction of conferences and workshops in new emerging areas
  - Conduction of Workshop and seminar on IPR & Industry-Academia Innovative Practices
  - Creation of an International Conference Series on "International Conference on Sustainable and Innovative Solutions for Current Challenges in Engineering & Technology (ICSISCET)" since 2019. {The 4th ICSISCET-2020}
  - Publication of proceedings of previous three conferences by Springer
  - Research collaborations with premier institutions
  - Increase in Books and Chapters in edited volumes
  - MoUs with industries, local bodies, government agencies and research organizations
  - Establishment of a start-up cell to promote need-based, marketable research
  - Enhancement of research publications
  - Increase in Patents applied/awarded/published
  - Linkage with institutes/industries for internship, on-the job training, project work, sharing of research facilities
  - International Conference of Undergraduate Students (ICUS 2021), November 27-28, 2021 was conducted in collaboration with Indian Institute of Information Technology, (IIIT) Pune, National institute of technology (NIT) Delhi, Christ University Bangalore, BDNIIT, RIET, Jaipur, Anand

International College of Engineering, Jaipur and REC Sonbhadra

- Schemes for research scholars as Research Assistants (RA), National Doctoral Fellows(NDF) & Quality Improvement Programme(QIP) are supported
- Research Advisory Committee (RAC) of each Ph.D. scholar is constituted
- Practice of six monthly review of scholars by the RAC started
- Clear norms for providing support to faculty members of the institute who are pursuing Ph.D from other institutes
- Appointment & tenure of project fellows (Junior research fellow/Senior research fellow etc.) as per the guidelines of the sponsoring agency/the institute
- Clear norms for regular faculty members of the institute who are pursuing Ph.D. from other institutes
- Timely submission of Annual Utilization Reports & Progress Reports of projects sanctioned by external agencies

File Description	Document
Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy adoption	**View Document**
URL of Policy document on promotion of research uploaded on website	**View Document**

3.1.2 The institution provides seed money to its teachers for research (average per year, INR in Lakhs)

Response: 7.2

3.1.2.1 **The amount of seed money provided by institution to its faculty year-wise during the last five years (INR in lakhs).**

2021-22	2020-21	2019-20	2018-19	2017-18
17.1759	0	18.849	0	0

File Description	Document
Minutes of the relevant bodies of the Institution	[View Document](#)
List of teachers receiving grant and details of grant received	[View Document](#)
Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized	[View Document](#)

3.1.3 Percentage of teachers awarded national / international fellowship for advanced studies/research during the last five years

Response: 5.43

3.1.3.1 **The number of teachers awarded national / international fellowship for advanced studies / research year wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
2	16	25	2	2

File Description	Document
List of teachers and their international fellowship details	[View Document](#)
e-copies of the award letters of the teachers	[View Document](#)

3.2 Resource Mobilization for Research

3.2.1 Grants received from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)

Response: 312.13

3.2.1.1 **Total Grants from Government and non-governmental agencies for research projects , endowments, Chairs in the institution during the last five years (INR in Lakhs)**

2021-22	2020-21	2019-20	2018-19	2017-18
41.9	54.7647	172.07	21.75	21.65

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

3.2.2 Percentage of teachers having research projects during the last five years

Response: 5.31

3.2.2.1 **Number of teachers having research projects during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
3	17	23	1	2

File Description	Document
Names of teachers having research projects	[View Document](#)

3.2.3 Percentage of teachers recognised as research guides

Response: 26.76

3.2.3.1 **Number of teachers recognized as research guides**

Response: 38

File Description	Document
Upload copies of the letter of the university recognizing faculty as research guides	[View Document](#)

3.2.4 Average percentage of departments having Research projects funded by government and non-government agencies during the last five years

Response: 26

3.2.4.1 **Number of departments having Research projects funded by government and non-government agencies during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
2	4	5	1	1

3.2.4.2 **Number of departments offering academic programes**

2021-22	2020-21	2019-20	2018-19	2017-18
10	10	10	10	10

File Description	Document
Supporting document from Funding Agency	[View Document](#)
List of research projects and funding details	[View Document](#)
Paste link to funding agency website	[View Document](#)

3.3 Innovation Ecosystem

3.3.1 Institution has created an eco system for innovations, creation and transfer of knowledge supported by dedicated centers for research, entrepreneurship, community orientation, Incubation etc.

Response:

The Institute was named a "Promising Institute" in the category Colleges/Institutes (Govt. & Govt. Aided) (Technical) in the Ministry of Education's Atal Ranking of Institutions on Innovation Achievements" (ARIIA) for the year 2021.All of the core engineering departments have dedicated research and innovation centres. In addition to the Institute's support, these facilities are funded by the Department of Science and Technology (DST) through the FIST-Level zero, AICTE-MODROB, and AICTE-RPS schemes.

The Institute has over 100 Ph.D. scholars working on research. IPR is generated in the form of products, patents, publications, and human resourcesThese facilities are used for faculty, staff, and student training. The research findings are shared with faculty and students from other departments via various faculty training programmes, FDPs, and so on.Students at the undergraduate and graduate levels also work on projects and dissertations, and they are encouraged to publish/present their papers at national and international conferences. Submission of a project/thesis requires the publication/presentation of at least one paper in a journalor conference.

File Description	Document
Upload any additional information	[View Document](#)

3.3.2 Number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR),entrepreneurship, skill development during the last five years.

Response: 112

3.3.2.1 **Total number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR),entrepreneurship, skill development year-wise during the last five years.**

2021-22	2020-21	2019-20	2018-19	2017-18
28	38	17	15	14

File Description	Document
Report of the event	View Document
List of workshops/seminars during last 5 years	View Document

3.4 Research Publications and Awards

3.4.1 The Institution ensures implementation of its stated Code of Ethics for research through the following: 1. Inclusion of research ethics in the research methodology course work 2. Presence of Ethics committee 3. Plagiarism check through software 4. Research Advisory Committee

Response: A. All of the above

File Description	Document
Any additional information	View Document

3.4.2 Number of Ph.D's registered per teacher (as per the data given w.r.t recognized Ph.D guides/ supervisors provided at 3.2.3 metric) during the last five years

Response: 3.03

3.4.2.1 How many Ph.Ds are registered within last 5 years

Response: 115

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

Response: 38

File Description	Document
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	View Document

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

Response: 2.33

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

2021-22	2020-21	2019-20	2018-19	2017-18
164	58	73	54	55

File Description	Document
List of research papers by title, author, department, name and year of publication	View Document

3.4.4 Number of books and chapters in edited volumes / books published per teacher during the last five years

Response: 1.13

3.4.4.1 **Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings year-wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
65	65	26	13	27

File Description	Document
List books and chapters in edited volumes / books published	View Document

3.4.5 Bibliometrics of the publications during the last five years based on average citation index in Scopus/ Web of Science or PubMed

Response: 5.16

File Description	Document
Bibliometrics of the publications during the last five years	[View Document](#)
Any additional information	[View Document](#)

3.4.6 Bibliometrics of the publications during the last five years based on Scopus/ Web of Science - h-index of the Institution

Response: 19.5

File Description	Document
Bibiliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	[View Document](#)
Any additional information	[View Document](#)

3.5 Consultancy

3.5.1 Revenue generated from consultancy and corporate training during the last five years (INR in Lakhs).

Response: 104.99

3.5.1.1 **Total amount generated from consultancy and corporate training year-wise during the last five years (INR in lakhs).**

2021-22	2020-21	2019-20	2018-19	2017-18
45.69289	17.89802	12.38141	13.1117	15.90163

File Description	Document
List of consultants and revenue generated by them	[View Document](#)
Audited statements of accounts indicating the revenue generated through consultancy and corporate training	[View Document](#)
Any additional information	[View Document](#)

3.5.2 Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs).

Response: 57.22

3.5.2.1 Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs)

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	56.10723	1.10785	0

File Description	Document
List of facilities and staff available for undertaking consultancy	[View Document](#)
Audited statements of accounts indicating the expenditure incurred on developing facilities and training teachers and staff for undertaking consultancy	[View Document](#)
Any additional information	[View Document](#)

3.6 Extension Activities

3.6.1 Extension activities are carried out in the neighbourhood community, sensitising students to social issues, for their holistic development, and impact thereof during the last five years

Response:

Students are being taught social responsibility by the Institute. National Service Scheme (NSS) activities are required of all second-year students. Blood donation, tree planting, aids awareness, and Swachhata Abhiyaan are all done on a regular basis.

By distributing short videos/messages/appeals that went viral among students, the Holistic Health Club launched a poster campaign and vaccination awareness drive. On April 20, 2021, a free vaccination drive was held on campus in collaboration with the Rotary Club and the MDP Foundation, Gwalior; 46 people were vaccinated. In collaboration with Birla Hospital, Gwalior, a free health camp was organised. 207 people were examined by 14 doctors.

More than 2000 masks were distributed, and the local administration received two oxygen extraction units. During the deadly second wave of the COVID pandemic, yoga/pranayam for 702 participants and nine counselling sessions for 241 counselees were arranged online in collaboration with various agencies and experts through the MITS.Initiatives towards Social Responsibilities. MITS staff and volunteers assisted 23 people who were in desperate need of a bed, ventilators, medical care, and oxygen.

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

3.6.2 Number of awards and recognition received by the Institution, its teachers and students for extension activities from Government / Government recognised bodies during last five years

Response: 100

3.6.2.1 **Total number of awards and recognition received for extension activities from Government/ Government recognised bodies year-wise during the last five years.**

2021-22	2020-21	2019-20	2018-19	2017-18
31	4	43	3	19

File Description	Document
Number of awards for extension activities in last 5 year	[View Document](#)
e-copy of the award letters	[View Document](#)

3.6.3 Number of extension and outreach programs conducted by the institution through NSS/NCC, Government and Government recognised bodies during the last five years

Response: 106

3.6.3.1 **Number of extension and outreach programs conducted by the institution through NSS/NCC, Government and Government recognised bodies during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
30	13	14	23	26

File Description	Document
Reports of the event organized	[View Document](#)
Number of extension and outreach Programmes conducted with industry, community etc for the last five years	[View Document](#)

3.6.4 Average percentage of students participating in extension activities listed at 3.6.3 above during

the last five years

Response: 89.98

3.6.4.1 **Total number of students participating in extension activities listed at 3.6.3 above year-wise during the last five years.**

2021-22	2020-21	2019-20	2018-19	2017-18
4823	1291	3239	4533	5846

File Description	Document
Reports of the event	[View Document](#)
Average percentage of students participating in extension activities with Govt or NGO etc	[View Document](#)

3.7 Collaboration

3.7.1 Number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on –the-job training/ project work

Response: 205.2

3.7.1.1 **Total number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on –the-job training/ project work**

2021-22	2020-21	2019-20	2018-19	2017-18
653	310	13	21	29

File Description	Document
Number of Collaborative activities for research, faculty etc	[View Document](#)
Copies of collaboration	[View Document](#)

3.7.2 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: 32

3.7.2.1 **Number of functional MoUs with institutions of national, international importance, other Institutions, industries, corporate houses etc. year wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
7	10	4	6	5

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 Institutions etc during the last five years	[View Document](#)

Criterion 4 - Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1 The Institution has adequate infrastructure and physical facilities for teaching- learning. viz., classrooms, laboratories, computing equipment etc.

Response:

The Institute is spread over an Area of 44.6 acre which is lush green and has an aesthetic landscape. The Institute constantly endeavours to provide quality education and ensure all round development of students.

The Institute has well maintained adequate number of class rooms, laboratories, computing equipments well beyond the regulatory guidelines conducive for teaching learning activities.

The Institute has total 59 number of class rooms including seminar halls, conference halls and studios which are well equipped with ICT Audio Video facilities like Smart LCD Projectors, Wi-Fi LAN enabled etc. which help teachers and students to share their ideas among themselves.

The Institute has total of 68 number well equipped laboratories including computing labs in all the departments to provide hands-on experience to the students, some of the laboratories are equipped with ICT facilities. Virtual labs are also developed for lab classes. A total of 615 computers are available exclusively for student usage. Apart from these, computers and laptops have been provided to the departments for faculty usage.

The computing facilities include licensed software's and also open software's are being used as per the curricula requirements. Some of the licensed software's are ANSYS, MATLAB, PS CAD, Proteus Design Suite, Office Pro Plus 2016, SQL Server ST2016, Turnitin (for Plag checking) etc.

The Institute has internet connectivity via lease line of 100 MBPS from NKN and 100 MBPS from IshanNetsol. The entire campus is Wi-Fi enabled with 24/7 internet facilities to the students and staff.

The Institute has following servers available: HP Xeon 8 Core (2.10 GHz), Intel Xeon E5-2603v3 (1.6 GHz)

State –of –art MOOC development centre has been established in the Institute where in faculty members develop their MOOCs.

The Institute has its own MOODLE server since 2017 to facilitate E-learning, evaluation including conduction of Mid Semester & End Semester Exams (MCQ based type). NPTEL local chapter has been established since 2017 to provide e-learning through MOOC courses.

There is a shop for Xerox and stationery within the campus to cater to the needs of students. There are 01 Boys Hostel & 03 Girls Hostel functional in the Institute at the moment which are equipped with facilities including mess etc.

As per the Vision of Institute, the Institute has created administrative block, Academic Infrastructure & amenities. Presently, Construction of one additional Academic Block is also under progress to

accommodate the need of increased intake of students in future. In the last three years, augmentation in physical infrastructure, equipment, library & Digital Teaching-Learning facility is done to ensure the need arisen due to increase in intake, market demand for emerging areas of Technology & Covid-19 pandemic challenges.

IMG1: SEMINAR HALL

IMG2: CONCLAVE CENTRE

IMG3: PROGRAMMING LAB (COMPUTATIONAL FACILITIES)

IMG4: MECHANICS OF MATERIALS LAB

IMG5: MOOCs DEVELOPMENT CENTRE

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

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

Response:

The Institute is committed towards holistic development of students. Students are encouraged to participate in different sports/cultural activities. The Institute has established Students Development Cell under the chairmanship of Dean, Students Welfare for promoting and organizing extracurricular and co-curricular activities regularly, every year in the Institute. The Institute has enough space available where different sports and cultural activities are being conducted regularly.

Following facilities are available in the Institute for conducting sports activities - A well-developed lush green cricket ground which conforms to quality norms with 04 turf pitches along with 04 practice nets, 02 other grounds near the main entrance of Institute, 02 Basket Ball courts out of which one is synthetic turf, lush green Football/ Hockey Ground, Volleyball court, 04 Badminton Courts including 01 in girls hostel, courtyard ground. Indoor sports facilities available in the form of Table tennis in canteen area and in girls as well as boy's hostel, other indoor sports facilities available in hostels include chess, carom, skipping ropes in girl's hostel.

Following facilities are extensively used for conducting indoor cultural activities - Conclave centre, Colloquium, Conference Hall, Area near main porch etc. Apart from these outdoor cultural activities are conducted in open air auditorium in main ground of capacity 500 persons and in open air auditorium in courtyard of capacity 200 persons and at other open spaces available in the Institute.

Yoga activities are conducted on dedicated yoga platform available near by the open air gymnasium and other open spaces in the Institute.

The Institute has 03 Gymnasiums (one open air gymnasium, two indoor gymnasium) equipped with latest equipments and machines like exercise cycle, tread mill, elliptical cross trainer, air walker, horse ride station, pull chair / push chair, rowing machine, double cross walker, leg press and exercise bar, seated chest press, sit up bench / sit up station, twister, bridge ladder, circular pull up station.

IMG1: MEET BROTHERS PERFORMANCE ON OCASSION OF DIAMOND JUBILEE CELEBRATIONS IN OPEN AIR AUDITORIUM IN MAIN GROUND

IMG2: DIAMOND JUBILEE CELEBRATIONS IN OPEN AIR AUDITORIUM IN MAIN GROUND

IMG3: ALUMNI FUNCTION ON OCASSION OF DIAMOND JUBILEE CELEBRATION IN OPEN AIR AUDITORIUM IN COURTYARD GROUND

IMG4: RAJASTHANI SUFI PERFORMANCE IN OPEN AIR AUDITORIUM IN COURTYARD GROUND

IMG5: GANESH UTSAV CELEBRATIONS NEAR MAIN PORCH

IMG6: CRIKCET GROUND

IMG7: BASKETBALL COURT

IMG8: FOOTBALL/HOCKEY GROUND

IMG 9: OPEN AIR GYMNASIUM

File Description	Document
Upload any additional information	View Document
Geotagged pictures	View Document

4.1.3 Percentage of classrooms and seminar halls with ICT- enabled facilities such as smart class, LMS, etc. *(Data for the latest completed academic year)*

Response: 100

4.1.3.1 **Number of classrooms and seminar halls with ICT facilities**

Response: 59

File Description	Document
Institutional data in prescribed format	View Document

4.1.4 Average percentage of expenditure for infrastructure augmentation excluding salary during

the last five years (INR in Lakhs)

Response: 50.17

4.1.4.1 **Expenditure for infrastructure augmentation, excluding salary year-wise during last five years (INR in lakhs)**

2021-22	2020-21	2019-20	2018-19	2017-18
1014.08	666.64	1014.54	976.85	354.34

File Description	Document
Upload Details of Expenditure , excluding salary during the last five years	View Document
Upload audited utilization statements	View Document
Upload 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:

Year	Name of ILMS Software	Nature of Automation	Version	Year of Automation
2017-2018	Koha	Fully	3.18	2014
2018-2019	Koha	Fully	3.18	2014
2019-2020	Koha	Fully	3.18	2014
2020-2021	Koha	Fully	3.18	2014
2021-2022	Koha	Fully	3.18	2014

Brief Description of ILMS

Learning Resource Centre of the Institute has automated its routine activities using Web Based Koha 19.11.22 Integrated Library Management System. The library is well equipped with modern technologies like RFID, Bar Code Technology, Remote Access facility, Federated Search, Mobile Apps for both Android as well as iOS users etc.Intranet OPAC and Web OPAC (Online Public Access Catalogue) facility is available to know the availability of books in the library. It can be accessed within campus and from outside of the campus (through e-Library Portal).Link to access for Web OPAC is available on Institute Website and e-Library portal. Koha provides an enhanced user experience through value-added feature and services. It covers Acquisition, Cataloguing, and Circulation along with an enriched OPAC. Its seamless work-flow enables library staff to manage library operations efficiently. Koha has adopted a new approach with its latest releases/editions incorporating advanced features like:

· MARC 21 Cataloguing

· Barcode enabled with option for RFID integration

· Integration with RFID & barcode readers

· More interactive and enhanced Web OPAC

· Full Unicode support

About 3300+ e-journals are being subscribed by the library from the reputed publishers e.g. ASME, ASCE, Jstor, to promote the research activities in theInstitute. More than 4412+ titles of e-books from McGraw-Hill, Pearson Education, Newage International, Khanna, Laxmi, etc are accessible to the users. Library also has access to millions of e-books from the World eBookLibrary and South Asian Archive provided by INFLIBNET ESodhsindhu. The learning resource centre is also a member of RGPV and EShodhSindhu consortia.

Central Library provides access of variety of e-resources e.g. e-journals, e-books, expert lectures, video tutorials, e-newspapers, e-magazines, e-theses, e-dissertations etc. through its e-Library portal named as MITS e-Library.

MITS E-Library Portal of the Learning Resource Centre has following features:

·   It Provides 24*7 access to more than 5 lakh + e-resources (subscribed by the Institute as well as relevant e-resources available in RGPV Consortia) from anywhere through Remote Access facility.

·   It Provides 24*7 access to more than 5 lakh + e-resources (subscribed by the Institute as well as relevant e-resources available in RGPV Consortia) from anywhere through Remote Access facility.

·   Mobile App is also available for both Android as well as iOS users to access e-Library Portal on smart phones/ tablets.

·   News alert facility is also available for the users to get relevant news alerts from various newspapers.

·   SocioLib feature allows the users to follow their peers or group to know what they are reading etc.

File Description	Document
Upload any additional information	View Document
Paste Link for additional information	View Document

4.2.2 Institution has access to the following: 1. e-journals 2. e-ShodhSindhu 3. Shodhganga Membership 4. e-books 5. Databases 6. Remote access to e-resources

Response: A. Any 4 or more of the above

File Description	Document
Institutional data in prescribed format	[View Document](#)
Details of subscriptions like e-journals, e-books , e-ShodhSindhu, Shodhganga Membership etc	[View Document](#)

4.2.3 Average annual expenditure for purchase of books/ e-books and subscription to journals/e-journals during the last five years (INR in Lakhs)

Response: 11.52

4.2.3.1 **Annual expenditure of purchase of books/e-books and subscription to journals/e- journals year wise during last five years (INR in Lakhs)**

2021-22	2020-21	2019-20	2018-19	2017-18
7.11	24.16	15.66	10.47	0.19

File Description	Document
Details of annual expenditure for purchase of and subscription to journals/e-journals during the last five years	[View Document](#)
Audited statements of accounts	[View Document](#)

4.2.4 Percentage per day usage of library by teachers and students (foot falls and login data for online access) during the latest completed academic year

Response: 17.11

4.2.4.1 **Number of teachers and students using library per day over last one year**

Response: 846

File Description	Document
Details of library usage by teachers and students	[View Document](#)
Any additional information	[View Document](#)

4.3 IT Infrastructure

4.3.1 *Institution has an IT policy covering wi-fi, cyber security, etc., and allocated budget for updating its IT facilities*

Response:

IT policies may be classified into following groups:

- IT Hardware Installation Policy
- Software Installation and Licensing Policy
- Network (Intranet & Internet) Use Policy
- E-mail Account Use Policy
- Institute Database Use Policy

The policies will be applicable at two levels:

- End Users Groups (Faculty, students, Senior administrators, Officers and other staff)
- Network Administrators

The objective is to provide secured and monitored access to software, hardware and internet to all users of the Institute 24x7.

The institute has enhanced the following IT infrastructure this year:

- Workstation, Enhancement for in research infrastructure on 25/09/2021
- New facilities/Computational Lab with 50 latest configuration desktop machines on 28/09/2021
- DSLR Camera for lecture and event recording, for Development of MOOCs, procured on 14/10/2021
- Mobile Workstations for Enhancement in research infrastructure procured on 23/10/2021
- Laptops for teaching lab and theory courses procured on 23/11/2021
- Graphic Tablets as Teaching aid for online teaching procured on 02/12/2021
- Computational Lab with 30 high end computing machines for the development of a new lab
- Interactive Display units 75"and 85" for Enhancement in teaching aids procured on 20/08/2021
- Additional (Backup) Leased Line 100 MBPS for Uninterrupted internet connectivity for online teaching, learning and research procured.
- UPS for Uninterrupted power supply and internet connectivity for online teaching, learning and research was procured.
- A totalBudget utilized for updating institutional IT facilities is 1.5 crore
- Institution has an IT policy covering Wi-Fi, cyber security, etc.

File Description	Document
Paste link for additional information	[View Document](#)

4.3.2 Student - Computer ratio (Data for the latest completed academic year)

Response: 7.81

4.3.3 Bandwidth of internet connection in the Institution.

Response: ?50 MBPS

File Description	Document
Details of available bandwidth of internet connection in the Institution	[View Document](#)

4.3.4 Institution has the following Facilities for e-content development

     1.**Media centre**
     2.**Audio visual centre**
     3.**Lecture Capturing System(LCS)**
     4.**Mixing equipments and softwares for editing**

Response: A. All of the above

File Description	Document
Upload Additional information	[View Document](#)
Institutional data in prescribed format	[View Document](#)

4.4 Maintenance of Campus Infrastructure

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

Response: 25.51

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)**

2021-22	2020-21	2019-20	2018-19	2017-18
417.32	263.46	415.68	398.07	472.76

File Description	Document
Upload any additional information	[View Document](#)
Details about assigned budget and expenditure on physical facilities and academic facilities	[View Document](#)
Audited statements of accounts	[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 Institute has well established systems and procedures along with dedicated manpower for monitoring and to ensure proper maintenance and utilization of infrastructure, library, sports facilities, laboratories, classrooms, seminar halls etc.

Following four maintenance cells are developed in the Institute:

1. **Civil Maintenance Cell:** Physical Infrastructure facilities like class rooms, Laboratories, Library, Sports complex, Computer Centre etc., are maintained internally by Civil Maintenance Cell of the Institute. Assistant Engineer, technical staff etc., are appointed in the Institute. The Civil Maintenance Work is monitored by building committee of the Institute. The building committee of the Institute is chaired by one of the Professor from Civil Engineering Department of Institute

2. **Electrical Maintenance Cell:** Institute has a separate Electrical Maintenance cell to ensure uninterrupted power supply and maintenance of electrical assets of 33 kv substation, Diesel Generator sets, lighting, power distribution system, solar panel etc.

3. **ICT Maintenance Cell:** ICT maintenance Cell maintain the facilities like, computers, LAN, internet, Wi-Fi and, MIS, LMS, CCTV security system, LCD projectors, ICT based Teaching learning facilities other ICT facilities through dedicated staff, Assistant registrar IT and in-charge ICT Maintenance Cell. The ICT Maintenance Cell of the Institute works under the supervision & guidance of Deputy Registrar of the Institute.

4. **General Maintenance Cell:**The General maintenance cell is established to keep the campus hygienically clean, drinking water supply through dedicated staff. The maintenance of equipment's for water supply sets, sewage treatment etc. are undertaken as per standard maintenance schedule. The General Maintenance Cell is working under the supervision of Deputy Registrar of the Institute.

Procedures for utilization/Maintenance:

1. Separate Complaint registers are maintained for various services like electrical, plumbing, housekeeping etc both for academic and hostel buildings. The e-system (through email) is functioning in the Institute for fast service.
2. Minor work is carried out by labour and Artisans appointed on labour rates.
3. Major maintenance work is carried out on contract through Annual Maintenance Contract System/tendering procedure/empanelment of service providers.
4. All repair, maintenance and upkeeps of labs are maintained by their lab in-charges/technical staff.
5. The utilization reports are maintained by In-charge Laboratory, HoDs, In-charge Maintenance Cell.
6. The Advanced and Expensive Equipment are maintained through Annual Maintenance Contract (AMC)/ empanelment of service providers.
7. Equipment, instruments and appliances involved in the teaching-learning process aremaintained through internal technical staff, service providers and AMC.
8. The procurement of services through AMC, parts/components are procured through well established mechanism of purchase under the monitoring of Central Purchase committee.

9. Periodic information/requirement of maintenance is submitted by HoDs/Section Incharge to concerning Maintenance Cell.
10. The Institute Central Library is maintained by the Librarian with dedicated library supporting staff. The library services like MIS, digital section, reference sections, Books issuing section, equipments and other library facilities are maintained regularly.
11. The fire safety equipments are installed at various locations as per standard Operating Procedure on safety and hazards.
12. Various sports faculties like grounds, gymnasiums, indoor game facilities, equipments are regularly maintained by Sports Officer. Sports Officer of the institute looks after the sports facilities and the activities. The sports equipments are issued to the students as per the schedule of the events. If any equipments get faulty sport officer submits proposal for maintenance. Preventive maintenance measures are taken in time. Sport Officer is responsible for keeping the record of utilization of sport Facilities, activities held, awards/achievements of the students etc.
13. SOPs are maintained in all laboratories, Computer Centres etc.
14. SOP for maintenance and to utilize all Academic, physical and support facilities including teaching learning, research laboratory and computer labs are managed by section Inchage/HoDs.
15. Class rooms are allocated to all departments along with necessary ICT tools. The class rooms are utilized as per the time table of the department. The class rooms are cleaned on daily basis monitored by institute supervisor. HODs and Class coordinators also monitor the cleanliness and ensure that the cleanliness is maintained in the class rooms.

File Description	Document
Upload any additional information	[View Document](#)
Paste link for 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 last five years

Response: 34.09

5.1.1.1 **Number of students benefited by scholarships and free ships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years (other than students receiving scholarships under the government schemes for reserved categories)**

2021-22	2020-21	2019-20	2018-19	2017-18
1810	1698	1504	1357	1174

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

5.1.2 Average percentage of students benefited by scholarships, freeships, etc. provided by the institution and non-government agencies during the last five years

Response: 13.93

5.1.2.1 **Number of students benefited by scholarships and free ships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years (other than students receiving scholarships under the government schemes for reserved categories)**

2021-22	2020-21	2019-20	2018-19	2017-18
3	3100	5	3	1

File Description	Document
Upload any additional information	[View Document](#)
Number of students benefited by scholarships and freeships besides government schemes in last 5 years	[View Document](#)
Institutional data in prescribed format	[View Document](#)

5.1.3 Following Capacity development and skills enhancement activities are organised for improving students capability 1. Soft skills 2. Language and communication skills 3. Life skills (Yoga, physical fitness, health and hygiene) 4. Awareness of trends in technology

Response: A. All 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 students benefited by career counseling and guidance for competitive examinations as offered by the Institution during the last five years.

Response: 88.95

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

2021-22	2020-21	2019-20	2018-19	2017-18
1942	4754	1582	6349	4745

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 The institution adopts the following for redressal of student grievances including sexual harassment and ragging cases 1. Implementation of guidelines of statutory/regulatory bodies

2. Organisation wide awareness and undertakings on policies with zero tolerance
3. Mechanisms for submission of online/offline students' grievances
4. Timely redressal of the grievances through appropriate committees

Response: A. All of the above

File Description	Document
Upload any additional information	[View Document](#)
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	[View Document](#)
Details of student grievances including sexual harassment and ragging cases	[View Document](#)

5.2 Student Progression

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

Response: 60.79

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

2021-22	2020-21	2019-20	2018-19	2017-18
739	568	505	605	522

File Description	Document
Upload any additional information	[View 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: 2.26

5.2.2.1 **Number of outgoing student progressing to higher education.**

Response: 23

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: IIT-JAM/CLAT/ NET/SLET/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations, etc.)

Response: 87.35

5.2.3.1 **Number of students qualifying in state/ national/ international level examinations (eg: IIT/JAM/ NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ State government examinations, *etc.*)) year-wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
58	131	94	89	28

5.2.3.2 **Number of students appearing in state/ national/ international level examinations (eg: IIT/JAM/ NET / SLET/ GATE/ GMAT/CAT,GRE/ TOEFL/ Civil Services/ State government examinations) year-wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
63	154	107	97	35

File Description	Document
Upload supporting data for student/alumni	[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 won by students for outstanding performance in sports/cultural activities at inter-university/state/national / international level (award for a team event should be counted as one) during the last five years.

Response: 41

5.3.1.1 Number of awards/medals won by students for outstanding performance in sports / cultural activities at inter-university / state / national / international events (award for a team event should be counted as one) year - wise during the last five years.

2021-22	2020-21	2019-20	2018-19	2017-18
22	4	9	3	3

File Description	Document
Number of awards/medals for outstanding performance in sports/ cultural activities at inter-university / state / 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:

`Students are nominated in BoS, Alumni Cell and Placement Cell at the department level.
· 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
· Gender Champions for establishing gender equity on campus are nominated by the class coordinators/Heads of D
· There are placement coordinators and volunteers for managing placement activities.
· Student representatives nominated to work as alumni coordinators for tracing, storing and involving alumni in the
· Senior students work 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 the innovation cell and start-up cell.
.· Students are members of Hostel mess committees
· Two student representatives are members of the IQAC.

File Description	Document
Upload any additional information	[View Document](#)

5.3.3 Average number of sports and cultural events / competitions organised by the institution per year

Response: 16.8

5.3.3.1 Number of sports and cultural events / competitions organised by the institution year - wise during the last five years.

2021-22	2020-21	2019-20	2018-19	2017-18
25	17	17	13	12

File Description	Document
Upload any additional information	[View Document](#)
Report of the event	[View Document](#)
Number of sports and cultural events / competitions organised per year	[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 other support services.

Response:

Alumni Association: The institute alumni association is registered and functional. The MITS Alumni Association operates from its permanent office located in MITS Campus.

Alumni Chapters: The alumni chapters are also functional and organizing activities in the chapters. The alumni chapters are functional in Gwalior, Delhi, Bhopal and Indore. Soon chapters will be started in Bangalore, Hyderabad, Pune, Mumbai and Chennai

Financial Contribution:

1. In last five years alumni contribution given to the institute is about 2300000.
2. Entrance Gate "Jubilee Gate" was constructed by alumni fund worth 15 lakhs.
3. Alumni also sponsored good projects from the students.
4. Financial support provided by alumni chapters to NGO's and primary/high schools students.
5. Contribution towards the alumni related events.
6. Donation of caution money towards the alumni fund.
7. There are a number of scholarships initiated by the alumni for supporting students who are meritorious and from economically weaker sections of the society.

Non-Financial Contribution

1. The representatives of the Alumni in (i) BoG (ii) IQAC and (iii) BoS
2. The alumni are involved in curriculum development and are helping in strengthening industry interaction.

3. Provides feedback on curriculum, syllabus and advanced technologies so that the institute can prepared industry-ready students.
4. Discussions were held to help the Institute with practical work and development. This was arranged with knowledge of Alumni working in various organizations, as on doing individual entrepreneurship.
5. The alumni help in internships and job placements.
6. The alumni help in organizing industrial visits, interactions etc.
7. Donated books to the MITS library worth 1.55385 lakhs.

File Description	Document
Any additional information	View Document

5.4.2 Alumni financial contribution during the last five years (in INR).

Response: A. ? 15 Lakhs

File Description	Document
Any additional information	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 institute is managed by the Scindia Engineering College Society (SECS) which is registered under the Societies Registration Act No. 53 of 1950 (no. 337 of 1956). The Institute functions under the chairmanship and guidance of the H.H. Jyotiraditya M. Scindia, Educationalist and other BoG Members. The Institute is administered by the Director of with other faculty members holding the significant administrative and academics responsibilities. The roles and responsibilities of each functionary are defined and the same are available on Institute website.

The Vision, Mission, branding Statement and value framework is aligned with the perspective plan prepared after SWOT analysis, based on departmental vision and stakeholders' feedback.

There is active **participation of the teachers in the decision-making bodies of the institution, such** Internal Quality Assurance Committee, Academic Council, Academic Development Cell, Student Development Cell, Board of Studies, Research Committee, Proctorial Board, Internal Audit Committee, Industry-Institute-Interaction Cell, Library Advisory Committee, Women Guidance, Grievances and Redressal Committee , Girls Grievance Cell, Students Grievances Cell, Discipline Committee, Central Purchase Committee, Anti Ragging Committee as per guidelines of Honorable Supreme Court of India, Internal Complaint Committee (ICC) for Women (Students & Staff) for Sexual Harassment at workplace, Hostel Admission Committee, Building Committee etc.

https://web.mitsgwalior.in/index.php/adminmanagement

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

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

Response:

The HoDs, Proctor, Deans have well defined duties.

·   Powers are given to Class Coordinators to ensure decentralization of all processes, monitoring records of attendance, student leaves, forwarding various documents & applications of students and final forwarding of examination form.

· 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 -

Ø OBE coordinator monitors activities related to attainment of COs through direct and indirect assessment, development of rubrics, computation of POs/PEOs, setting of targets, corrective actions, gap analysis, question paper analysis on the basis of LOTs/HOTs/Bloom's Taxonomy etc.

Ø Coordinator for remedial/bridge classes, Web coordinator for departmental web page management, Coordinator for departmental e-Newsletter, Alumni coordinator for enhancing and managing alumni interaction and Plagiarism administrator l have clearly defined responsibilities.

Ø **Case Study:** One of the most successful best practices at MITS is the use of MOODLE for all teaching-learning-evaluation activities. This has been possible due to the role played by the MOODLE coordinator who created awareness by conducting special sessions to address queries of students and faculty from time to time and facilitated effective utilization of the MOODLE for Quiz, Feedbacks, assignments, midterm evaluation etc.

Additional information is available at :https://web.mitsgwalior.in/index.php/participative-management

File Description	Document
Any additional informatiom	[View Document](#)
Link for strategic plan and deployment documents on the website	[View Document](#)

6.2 Strategy Development and Deployment

6.2.1 The institutional Strategic / Perspective plan is effectively deployed

Response:

The Institute has developed a strategic plan to ensure the vision & mission of Institute at Academic & Administrative levels. The Board of Governors of the Institute has approved the plans & continuously monitoring the same for effective implementation & progress of the plan specific activities to ensure the quality education.

The Perspective Plan of the Institute is prepared for the development up to 2023. Apart from monitoring by BoG, the state government also monitors the progress and implementation through review meetings. Clear targets are set for different activities and achievements of specific goals such as achieving Accreditation Status, Faculty Recruitment, Academic Reforms, Academic Improvement Projections, Students Progression Targets, Allocation of Development funds for IT and other learning Infrastructure, Laboratories and Innovations, research & development, Faculty Knowledge Enhancement and student Activities, strengthening of Technical & Internal Support system, providing student Support, alumni engagement, industry interaction, Internationalization etc.

For effective implementation of the National Education Policy (NEP-2020) clear annual projections and numeric goals have been planned. The details were finalized after discussion in the meeting of the Human Resource Development committee of the instate in its meeting in July 2021, where a few administrative heads of the top national institute were also invited.

Additional information at: https://web.mitsgwalior.in/index.php/perspective

File Description	Document
Any additional information	View Document
Link for Strategic Plan and deployment documents on the website	View Document

6.2.2 The functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment, service rules and procedures, etc.

Response:

The Board of Governors ensure the establishment/monitoring of effective and efficient systems of control and accountability to ensure **Outcome Based Quality Education** as per the vision of the Institute.

Ø   The day-to-day administrative affairs of the College are managed by the Director of the Institute through a decentralized system to ensure the proper conduct of all the academic/research/development/extension activities.

Ø   The administrative responsibilities are shared by the Dean-Academics, Dean-Students Welfare, Registrar, Exam Controller, Proctor, Heads of the Department, Deputy Registrar and Finance officer.

Ø Decentralized mechanism exists in the Institute, the other faculty as per abilities/choice & interests are assigned the responsibility of coordinator/In-charge/member of committee for empowerment and one to one interaction with the stakeholders.

Ø   The various administrative responsibilities as shown in **organizational chart of the institute** and committees including anti-ragging & Grievance redressal committees have been formed for power delegation and decentralization of authority for the effective/efficient functioning of the institution in all its spheres of planning, decision-making and implementation.

Ø The **Board of Governors of the Institute** is playing a crucial role in the growth of the Institute in terms of Quality & Quantity through various meetings and visits in the Institute.

Paste link to Organogram on the institution webpage : https://web.mitsgwalior.in/images/NAAC/orgchart.pdf

File Description	Document
Any additional information	[View Document](#)
Link to Organogram of the Institution webpage	[View Document](#)

6.2.3 Implementation of e-governance in areas of operation

1. Administration
2. Finance and Accounts
3. Student Admission and Support
4. Examination

Response: A. All of the above

File Description	Document
Screen shots of user interfaces	[View Document](#)
Institutional data in prescribed format	[View Document](#)
ERP (Enterprise Resource Planning) Document	[View Document](#)
Link for additional information	[View Document](#)

6.3 Faculty Empowerment Strategies

6.3.1 The institution has effective welfare measures for teaching and non-teaching staff and avenues for career development/ progression

Response:

The welfare measures for the teaching and non-teaching staff are successfully implemented in the Institution, the following benefits are given to the teaching and non-teaching staff:

- Schemes as per MP Govt. norms such as Gratuity, GPF, Pension, Commutation of Pension, leaves, EL encashment, University Welfare Scheme, etc.
- Promotions/upgradation/career advancement etc as per government/institute norms
- Encouragement and Financial Support to the faculty & staff to attend workshops, conferences, and other faculty & staff development/Training programmes with leave
- Seed Money to faculty for research
- The teaching/non-teaching staff are given appreciation letters & Awards for outstanding performance in teaching, research and administration.
- Financial assistance to conduct In-house faculty & staff development programme.
- Conduction of FDP/STTP/workshops/training programmes on emerging areas
- Conduction of Induction programmes for the newly recruited faculty & staff.
- Conduction of various training programmes on pedagogical approaches, Finance Management System, MS-Office, office management for non-teaching staff, and waste management, operating fire extinguisher training for other domestic staff.

- Grievance Redressal Cell to address the issues and grievances of the faculty & staff.
  - Availability of full-time professional counsellor for faculty & staff.
  - Gymnasium, Sports & Games facility

  - Group Insurance Scheme for teaching and non-teaching staff.
  - Teachers' Welfare Fund.
  - Free health check-up camps, Medical Dispensary

File Description	Document
Any additional information	[View Document](#)
Link for 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: 56.85

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**

2021-22	2020-21	2019-20	2018-19	2017-18
64	51	82	145	136

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

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

Response: 26.6

6.3.3.1 **Total number of professional development /administrative training Programmes organized by the institution for teaching and non teaching staff year-wise during the last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
23	43	29	33	05

File Description	Document
Reports of Academic Staff College or similar centers	[View Document](#)
Institutional data in prescribed format	[View Document](#)
Link for additional information	[View Document](#)

6.3.4 Average percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP)during the last five years (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course).

Response: 81.49

6.3.4.1 **Total number of teachers attending professional development Programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes year wise during last five years**

2021-22	2020-21	2019-20	2018-19	2017-18
117	133	182	218	74

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

6.4 Financial Management and Resource Mobilization

6.4.1 Institution conducts internal and external financial audits regularly

Response:

Internal and External Financial Audits

The Institute has **transparent mechanisms** for all financial matters and following all the government rules & regulation for maintain the Accounts of the Institute. The Institute is Grant-in-Aid 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. The Institute has following mechanism for conducting audits on the financial transactions every year to ensure financial compliance:

- The Copies of sanction of Budget/Note-Sheets, invoice and bills, and supporting documents of every purchase is maintained by the concerned section/Departments and the original documents are maintained in the finance & accounts section of the Institution. The details of all the expenditures / transactions of the entire financial year are maintained in the accounts office. The accounts are maintained through Tally Software.
- There is a **Resident Auditor of Govt. of Madhya Pradesh** and the Pre-auditing system exists in the Institute. However, Post Audit is conducted by Office of the **Accounts General, Govt. of India** periodically.
- The TEQIP-III funds (2017-2021) 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.
- The accounts of the Institute are audited by chartered accountant regularly as per the government rules. The auditor ensures that all payments are duly authorized after the audit, the report is sent to the society for review.
- The **internal finance committee (sub-committee of BoG)** of Institute thoroughly verifies the income and expenditure details and the compliance report of internal audit is submitted to the Society of the institution through Director.
- To maintain the transparency, the Institute publishes audited reports on the institute website as information for the stakeholders.

Mechanism for settling audit objections

In case of any observations/objections from Auditor, objections are communicated to concerned section/department to submit the compliance report as per audit observations, the compliance report is further examined by the account section. The review of compliance report is also done by the Director of the Institute before submission to auditor. The process of submission of audit compliance report is processed immediately along with the supporting documents within the prescribed time limits. **However, in the year 2017-18, 2018-19, 2019-20, 2020-2021 & 2021-22 years institute has not received any major audit objection.**

File Description	Document
Any additional information	[View Document](#)
Link for 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 and V) (INR in Lakhs)

Response: 23.6

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

2021-22	2020-21	2019-20	2018-19	2017-18
23.60	0	0	0	0

File Description	Document
Institutional data in prescribed format	[View Document](#)
Annual statements of accounts	[View Document](#)
Link for additional information	[View Document](#)

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

Response:

Adequacy of budget allocation

As per perspective plan of the Institute, BoG of the Institute allocates the fund to meet out the targets decided for quality education. BoG of the Institute has also decided that funds should not be a hindrance factor to achieve the vision of the Institute. Adequacy of allocated budget and expenditure is monitored through finance committee and BoG of the Institute.

Resource Mobilization

The Institute is Grant-in-Aid 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.

The mechanisms used to monitor effective and efficient use of financial resources:

Before the commencement of every financial year, Director submits a proposal on budget allocation, after consideration of recommendations made by the heads of all the departments, section In-charges & Finance officer to the Board of Governors for approval.

Institute budget includes capital expenditure for Infrastructure Developments, recurring expenses such as salary, electricity, internet charges, maintenance cost, stationery, other consumable charges etc..

The expenses are monitored by the finance & accounts section as per the budget allocated by the management.

In case of any additional fund requirement due to unexpected expenditure during the year, the provision of supplementary budget proposal submission to BoG also exists.

The Finance committee of the BoG, reviews all the financial activities through scrutiny of budgets and expenses in every quarter.

All the Heads of the departments are intimated of the extent of funds allocated against their budget proposals. Major works like construction, up gradation of existing infrastructure, procurement and maintenance of common utilities, house-keeping, procurement of furniture, etc., are controlled directly by Director. Hence the utilization is always more than 85%.

- During last three years budget allocation and utilization is in order and no deficiency was observed.

- Adequate amount of money has been spent on purchase of library books and other teaching learning resources.

- State of the art laboratory equipments have been purchased benefiting students to conduct experiments.

- Laboratory consumables have also been utilised for conduct of various experiments by students.

- R & D budget is though limited but has facilitated attracting new research project for the institution.

- In operation and maintenance, adequate funds have been utilized which includes felicitation of teachers, travel grants for participation in conferences, etc.

Institutional audit reports for last three years are available on webpage on the institute's website https://web.mitsgwalior.in/audit-statements

The budget allocation is done on the basis of requirement raised by department to meet out the financial needs related to various components such as learning resources, equipments, research resources, training and participation in conferences, industry interfacing etc. The Department is contributing in all dimensions, which shows the adequacy of fund in terms of appropriate development of department. Supplementary allocations are made in special cases, if needed.

File Description	Document
Any additional information	[View Document](#)
Link for 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 visible in terms of – Incremental improvements made for the preceding five years with regard to quality (in case of first cycle) Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives (second and subsequent cycles)

Response:

Post Accreditation Initiatives

- Mechanism for slow-fast learners
- Value added courses
- Effective implementation of Flexible Curriculum and NEP-2020
- Credit transfer from MOOCs
- NPTEL local chapter
- Multiple mode teaching learning pattern (MMTLP)
- Academic and administrative audit (AAA)
- Faculty feedback index (FFI) for monitoring T-L-E
- Digitization of classrooms
- Focus on publications
- Innovative research scheme
- Partial course delivery by industry professional
- 400 plus industry collaborations for full VIII semester internship
- Enhancement of student placements through (v) above
- In-house summer internship programmes
- Orientation programmes
- Establishment of gender-sensitive culture, events
- Alumni donations
- State-of-the-art digital studio
- MOOC development by faculty
- Installation of 100kWp roof-top solar plant
- Computation of Administrative Efficiency Index (AEI)
- Awarding meritocracy

Contribution of IQAC in institutionalizing quality practices through continuous monitoring & review

1. **Computation of Administrative Efficiency Index (AEI)**

The objective of computation of the numeric 'Administrative Efficiency Index (AEI)' for each academic department is:

- To increase the effectiveness of teaching-learning-evaluation and other identified quality initiatives
- To quantify the performance of departments of the institution
- Institutionalization of practices

CONCLUSION & EVIDENCE OF REVIEW BY IQAC

Review by IQAC on 30th December 2022

Item 12: Report on computation of Administrative Efficiency Index (AEI) for July-November 2022 session

—The institute has a practice of computing administrative efficiency index since January-June 2020 semester.

—During the previous meeting, external members suggested that we present the previous experiences and projections.

—The AEI indices of the departments for the three successive semesters Jan-June 2020, July to Dec 2020, Jan-June 2021, July to Dec 2021, Jan-June 2022 and July to Dec 2022 are compared.

—A total of **43 parameters (reports)** were used for the computation of AEI out of 10. The department wise scores are listed here.

Number of parameters for **January to June 2020 were: 30**

Number of parameters for **July to December 2020 were: 37**

Number of parameters for **January to June 2021 were: 60**

Number of parameters for **July to December 2021 were: 63**

Number of parameters for **January to June 2022 were: 71**

Number of parameters for **July to December 2022 were: 43**

Duration	Civil	Mech & Auto.	Elect / IOT	Elex & ET	CSE	IT/ IOT/ AIR	Chem	MAC	Humanities	Arch	MBA
January to June 2020	6.16	5.71	6.94	7.13	8.87	......	5.70	......	5.14	4.06	....
July to Dec 2020	7.76	6.76	8.46	9.11	8.49	......	7.72	......	4.56	5.76	...
January to June 2021	5.53	6.82	7.18	7.35	6.70	6.64	5.51	6.02	6.05	5.00	4.32
July to Dec 2021	6.16	7.54	8.51	8.48	7.51	8.56	7.53	8.25	6.67	6.72	7.58
January to June 2022	6.27	6.68	7.52	**8.52**	**8.15**	7.01	5.21	6.23	5.60	5.82	5.64
July to Dec 2022	6.47	7.91	5.30	9.14	7.40	5.00	1.78	8.39	....	7.89	......

Review by IQAC on 30th June, 2022

Item. 13: Report on computation of Administrative Efficiency Index (AEI) for January-June 2022 session

— The institute has a practice of computing administrative efficiency index since January-June 2020 semester.
— During the previous meeting, external members suggested that we present the previous experiences and projections.
— The AEI indices of the departments for the three successive semesters Jan-June 2020, July to December 2020 and January-June 2021 are compared.
— A total of **71 parameters (reports)** were used for the computation of AEI out of 10. The department wise scores are listed here.

Review by IQAC on 8th October 2021

Item. 4: Administrative Efficiency index (AEI) of January-June 2021 Session

— As previously discussed and approved in the meeting of the IQAC the Administrative Efficiency Index (AEI) for the **Jan-June 2021** session has been computed. During April-May 2021 the city was facing the deadly third wave of COVID pandemic; still the faculty members tried to do their best.
— The AEI indices of the departments for the three successive semesters Jan-June 2020, July to December 2020 and January-June 2021 are compared.
— A total of **60 parameters (reports)** were used for the computation of AEI out of 10. The department wise scores are listed here.

COMPARISON OF LAST THREE SEMESTER REPORTS
(January 2020 to December 2020)

COMPARISON OF ADMINISTRATIVE EFFICIENCY INDEX (AEI) (out of 10)										
Duration	Civil	Mech. & Auto.	Elect.	Elex. & ET	CSE & IT	Chem.	BT	Humanities	Applied Sci.	Arch.
January to June 2020	6.16	5.71	6.94	7.13	8.87	5.70	3.80	5.14	6.04	4.06
July to December 2020	7.76	6.76	8.46	9.11	8.49	7.72	4.75	4.56	5.14	5.76
January to June 2021	5.53	6.82	7.18	7.35	6.70	5.51	--	6.05	--	5.00

Review by IQAC on 29th August 2020

Item-12	As previously discussed and approved in the meeting of the IQAC the **Administrative Efficiency Index (AEI)** for the Jan-June 2020 session has been computed.

> The house reviewed the status of Administrative Efficiency Index (AEI) of various academic departments, following are the details:

- A total of **30 parameters** were used for the computation of **AEI** out of **10**. The department wise scores are listed here.

Rank	Name of the Department	AEI (out of 10)
1.	CSE & IT	9.14
2.	Applied Sciences	8.05
3.	Electrical Engineering	7.88
4.	Electronics/Electronics & Telecommunication	7.81
5.	Chemical Engineering	7.67
6.	Humanities	7.20
7.	Civil Engineering	6.96
8.	Mechanical & Automobile Engineering	6.96
9.	Biotechnology	6.71
10.	Architecture	6.44

Review of activity timelines by IQAC on 28th September 2022

Item 21: To report about circulation of activity timelines for July-December 2022 *{for the computation of Administrative Efficiency Index (AEI)}*

— The institute has a practice of circulating the timelines for departmental and other academic activities at the beginning of the session, for smooth conduction of all processes.
— The IQAC was informed that the practice is continued and the same was circulated on August 2nd 2022.

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

ADMINISTRATIVE EFFICIENCY INDEX (AEI)

S. No	Routine Information/Data (Soft Copy of report or intimation to be sent to the Dean Academics E-Mail according to deadline)	Deadline
	Session : July to December 2022	
1	Time Table for II-Final year UG & PG Classes on the department web page	28-07-2022
2	**Weekly Classes Statement (Theory & Laboratories)** Every Monday	08-08-2022
3	**Report of Orientation Programme for II to IV Year** (1. An Introduction to OBE & OBE Coordinators 2. Importance of Self-learning through SWAYAM 3. Career Opportunities/How to prepare for GATE 4. Importance of Feedback on COO, PO, Faculty Feedback, Curriculum) in accordination and quality improvement 5. Importance of attending special classes for slow/fast paced 6. Institute MOODLE and the activities on MOODLE 7. Efforts made by Institute for students' overall development like student chapters, clubs etc. 8. Importance of taking part in technical activities outside Institute/information of such documents to class coordinator 9. Introduction to chapter/Semester Evaluation Process 10. Teacher students should be briefed about the Flexible Curriculum & various electives etc. by available faculty member 11. Anticipate projects to Final Year students & our don Industrial elective ideas etc 12. Importance of internships 13. Any other information which the department feels is required to be clarify the the students to avoid complications and issues later (Regarding attendance, mid-term tests,	16-08-2022
4	**Weekly Classes Statement (Theory & Laboratories)**	16-08-2022
	Weekly Classes Statement (Theory & Laboratories) Every Monday	22-08-2022
5	**Weekly Classes Statement (Theory & Laboratories)** Every Monday	29-08-2022
6	Data to be shared with Dean Office in excel sheet(Allotment of Projects to the students: should be completed within 15 days of the commencement to regular classes) To be coordinated class	30-08-2022
7	**Weekly Classes Statement (Theory & Laboratories)** Every Monday	05-09-2022
8	**Weekly Classes Statement (Theory & Laboratories)** Every Monday	12-09-2022
9	**Weekly Classes Statement (Theory & Laboratories)** Every Monday	19-09-2022
10	**Weekly Classes Statement (Theory & Laboratories)** Every Monday	26-09-2022
11	**Action Taken on First Faculty Feedback (II-IV Year) (December 2022) (One to one meeting with faculty) and file sent to the Director for signature through the Dean Academics Office within 10**	30-09-2022
12	**Responses of First Faculty Feedback (FF) (II-IV Year) (September 2022) Responses >60% – points 10, Responses>55% – points 7, Responses>50% Points-5, Responses>40% Points-3,**	–
13	**Report on slow and fast learners (Based on attendance, performance of quiz & mid-semester**	30-09-2022
14	**Displaying all first mid-semester examination marks on Webpage in single excel format**	30-09-2022
15	**Uploading Newsletter on the department web page** (Quarterly)	30-09-2022
16	**Weekly Classes Statement (Theory & Laboratories) (Every Monday)**	30-09-2022
17	**Report of Six Monthly Review of Ph.d. Students** by Research Advisory Committee in September 2022. (Signed Hard Copy)	30-09-2022
18	**Weekly Classes Statement (Theory & Laboratories)** Every Monday	10-10-2022
19	**Weekly Classes Statement (Theory & Laboratories)** Every Monday	17-10-2022
20	**Weekly Classes Statement (Theory & Laboratories)**	25-10-2022
	Weekly Classes Statement (Theory & Laboratories)	31-10-2022
21	Report of Stakeholder Feedback on Course Content/Curriculum (About 2-4 weeks before BoS meeting in November) Class coordinator through MOODLE	31-10-2022
22	**Report of Teacher Feedback on Course Content/Curriculum** (Format in Annexure-IV) (About 2-4 weeks before BoS meeting in April) Class coordinator through MOODLE	31-10-2022
23	**Report of VIII Semester Internship/Project induction & briefing**	31-10-2022
24	**Weekly Classes Statement (III & IV Year) (Theory & Laboratories)** Every Monday	07-11-2022
25	**Displaying all second mid-semester examination marks on Webpage in single excel format**	21-11-2022
26	**Action Taken on Second Faculty Feedback (II-IV Year) (December 2022) (One to one meeting with faculty) and file sent to the Director for Signature through the Dean Academics Office**	25.11.2022
27	**Responces of Second Faculty Feedback (FF) (II-IV Year)(November 2022) Responses >60% – points 10, Responses>55% – points 7, Responses>50% Points-5, Responses>40% Points-3,**	–
28	**Uploading Newsletter on the department web page (Quarterly)**	30-11-2022

Note : – Excellent same day = 10; Very Good if within 2-4 days = 7; Good if within 5-7 days = 5; Average if within 8-10 days = 3; Below Average if within 11-15 days = 1; Work Not Done /reported even after 15 days = 0
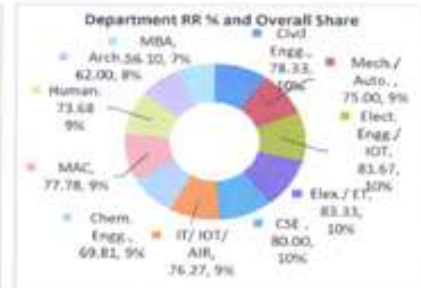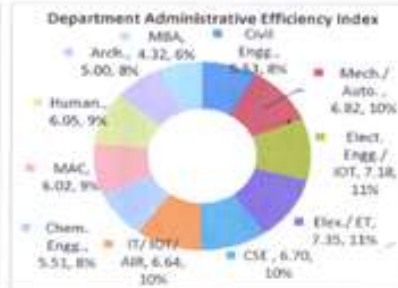
Sample of Computation of AEI (January-June 2021)

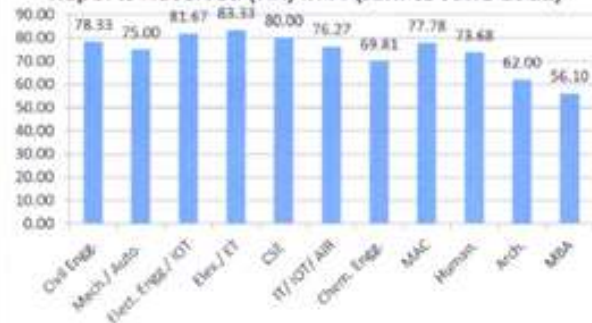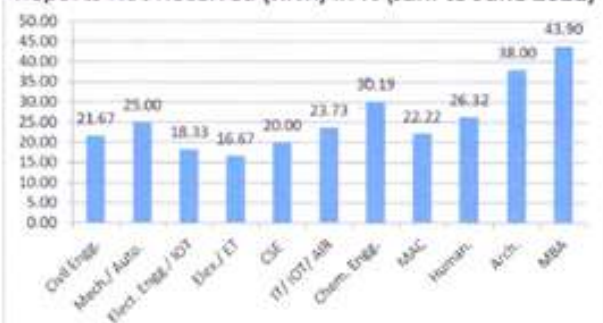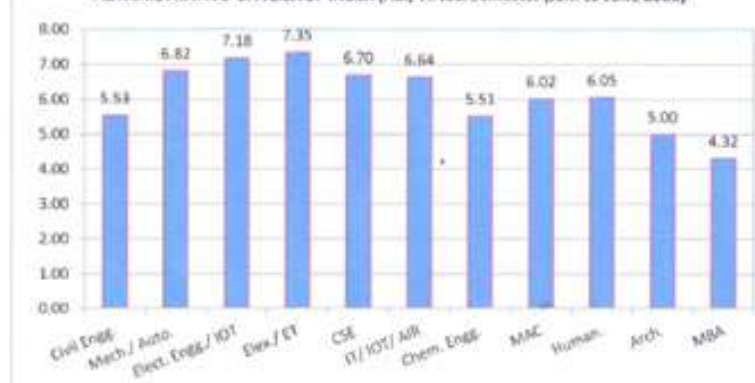# MADHAV INSTITU_E OF TECHNOLOGY & S_IENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

ADMINISTRATIVE EFFICIENCY INDEX (AEI) (Session - January to June 2021) Total reports: 60

ADMINISTRATIVE EFFICIENCY INDEX	Civil Engg.	Mech./ Auto.	Elect. Engg./ IOT	Elex./ ET	CSE	IT/ IOT/ AIR	Chem. Engg.	MAC	Human.	Arch.	MBA	Total
Timely Reports Not Received	13	15	11	10	12	14	16	10	16	19	19	148
Below Average (Reports recd. within 11-15 days)	0	0	0	2	2	0	2	1	0	1	0	8
Average (Report recd. within 8-10 days)	4	0	2	1	2	2	1	1	2	1	3	19
Good (Report recd. within 5-7 days)	10	4	0	2	2	1	7	6	3	1	1	37
Very Good (Report recd. within 2-4 days)	20	7	15	8	12	13	6	11	7	13	9	121
Excellent (Report recd. same day)	13	34	32	37	30	29	21	16	16	15	10	253
Timely Reports Received	47	45	49	50	48	45	37	35	28	31	23	438
ADMINISTRATIVE EFFICIENCY INDEX (AEI) (out of 10)	5.53	6.82	7.18	7.35	6.70	6.64	5.51	6.02	6.05	5.00	4.32	
Reports not Applicable (NA)	0	0	0	0	0	1	7	15	22	10	19	
Reports Not Received (RNR) in %	21.67	25.00	18.33	16.67	20.00	23.73	30.19	22.22	26.32	38.00	43.90	
Reports Received (RR) in %	78.33	75.00	81.67	83.33	80.00	76.27	69.81	77.78	73.68	62.00	56.10	

Combined Reports Administrative Efficiency Index

Department Administrative Efficiency Index

Department RR % and Overall Share

Reports Received (RR) in % (Jan. to June 2021)

Reports Not Received (RNR) in % (Jan. to June 2021)

ADMINISTRATIVE EFFICIENCY INDEX (AEI) Virtual Semester (Jan. to June 2021)

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

ADMINISTRATIVE EFFICIENCY INDEX (AEI)

S. No.	Routine Information/Data (Soft Copy of report or intimation to be send Dean Academics E-Mail according to dead line)	Dead Line Date	Civil Engg.	Mech./ Auto.	Elect. Engg. / IOT	Elex./ ET	CSE	IT/ IOT/ AIR	Chem. Engg.	MAC	Huma nities	Arch.	MBA	Remark (if any)
	Session : January to June 2021 *with 1 Year December 2020 to July 2021 (Both Sem)*													
1	Weekly Classes Statement (I Year - I Sem) (Theory & Laboratories) Every Monday	14/12/2020	7	10	7	10	10	10	NA	10	7	7	7	
2	Weekly Classes Statement (I Year - I Sem) (Theory & Laboratories) Every Monday	21/12/2020	7	10	7	10	10	10	NA	10	7	7	7	
3	Weekly Classes Statement (I Year - I Sem) (Theory & Laboratories) Every Monday	28/12/2020	10	10	10	10	10	10	NA	10	10	10	10	
4	Weekly Classes Statement (I Year - I Sem) (Theory & Laboratories) Every Monday	04/01/2021	7	7	7	7	10	10	NA	7	10	7	7	
5	SWAYAM registration for upcoming semester (Jan. to June 2021), HoD & Swayam Coordinator	07/01/2021	10	10	10	10	10	10	10	10	NA	NA	NA	
6	Weekly Classes Statement (I Year - I Sem) (Theory & Laboratories) Every Monday	11/01/2021	7	10	7	10	10	10	NA	10	10	7	10	
7	Responces of Faculty Feedback (FF) (Jan 2021) through GOOGLE FORM during (First Year) First Feedback >60% Responses 10, >55% Responses 7, >50% Responses 5, >40% Responses 3, Else category Responces 1	-	10	10	10	10	10	10	10	10	NA	10	10	
8	Weekly Classes Statement (I, II & III Year) (Theory & Laboratories) Every Monday	18/01/2021	7	10	7	10	7	10	NA	7	10	7	10	
9	Weekly Classes Statement (I, II & III Year) (Theory & Laboratories) Every Monday	25/01/2021	7	10	10	7	10	10	5	7	10	3	10	

Page 3 of 8

#	Description	Date												
41	Information about Publication (SCI/SCOPUS) (2019-2020), HoD	24/04/ ?1	0	0	3	7	3	7	5	3	3	NA	NA	
42	Weekly Classes Statement (II & III Year) (Theory & Laboratories) Every Monday	26/04/2021	5	7	10	10	10	7	5	NA	NA	10	NA	
43	Weekly Classes Statement (I Year - II Sem) (Theory & Laboratories) Every Monday	26/04/2021	7	7	10	10	10	7	5	10	10	0	0	
44	Uploading Newsletter on the department web page (Quarterly) (1. July to Sep., 2. Oct. to Dec., 3. Jan. to March & 4. April-June)	30/04/2021	0	0	0	0	0	0	0	0	0	0	0	
45	List of in-house MOOC courses to be offered under Open Course (OC) Category for the VIII Sem B.Tech., HoD	30/04/2021	0	0	10	10	0	0	0	NA	NA	NA	NA	
46	Action Taken Report on (II & III Year) Student Second Faculty Feedback, (within 10 days of receiving the mail), HOD	03/05/2021	0	0	0	0	0	0	0	NA	NA	0	NA	
47	Book Chapters information (2019-2020), HoD	03/05/2021	10	7	10	7	7	7	7	NA	NA	NA	NA	
48	Weekly Classes Statement (II & III Year) (Theory & Laboratories) Every Monday	03/05/2021	5	5	10	7	10	7	5	NA	NA	10	NA	
49	Weekly Classes Statement (I Year - II Sem) (Theory & Laboratories) Every Monday	03/05/2021	5	5	10	7	10	7	10	7	10	10	3	
50	Responces of Faculty Feedback (FF) (May 2021) through GOOGLE FORM during (First Year - II Sem) First Feedback >60% Responses 10, >55% Responses 7, >50% Responses 5, >40% Responses 3, 1 the category Responses 1	-	10	10	7	5	1	3	10	10	NA	1	10	
51	Weekly Classes Statement (I Year - II Sem) (Theory & Laboratories) Every Monday	10/05/2021	5	10	10	10	10	10	3	10	5	7	7	
52	Weekly Classes Statement (I Year - II Sem) (Theory & Laboratories) Every Monday	17/05/2021	7	10	10	10	10	10	10	7	10	10	7	
53	Weekly Classes Statement (I Year - II Sem) (Theory & Laboratories) Every Monday	31/05/2021	3	10	10	10	10	10	0	10	0	7	7	

#	Description	Date												
54	Report of Remedial/Additional Classes (Yes/No) (I Year : II Sem) Identifying absentees, poor performers, etc. of First Mid-Semester Exam and announcing their Names Within 10 days of completion of Mid-Semester Exams, Class Coordinators (Monitored by HoD)	04/0? ?021	3	10	3	0	10	0	3	5	0	0	0	
55	Weekly Classes Statement (I Year - II Sem) (Theory & Laboratories) Every Monday	07/06/2021	7	10	10	10	10	7	5	7	0	10	7	
56	Weekly Classes Statement (I Year - II Sem) (Theory & Laboratories) Every Monday	14/06/2021	7	10	7	10	10	10	7	10	5	10	10	
57	Sharing Project/Internship Report (FPR), HoD	15/06/2021	0	10	0	10	0	10	0	NA	NA	NA	NA	
58	Sharing of the Evaluation of "Professional Development Course in VIII Semester", HoD	15/06/2021	10	0	10	0	0	0	0	NA	NA	NA	NA	
59	Weekly Classes Statement (I Year - II Sem) (Theory & Laboratories) Every Monday	21/06/2021	5	10	10	10	7	10	7	7	7	10	7	
60	Action Taken Report on Student First Faculty Feedback (I Year - II Sem), (within 10 days of receiving the mail), HOD	21-06-2021	0	0	0	10	7	0	0	0	0	0	0	

Note :- Excellent same day = 10; Very Good if within 2-4 days = 7; Good if within 5-7 days = 5; Average if within 8-10 days = 3; Below Average if within 11-15 days = 1; Work Not Done /reported even after 15 days = 0

Compiled by Rajni Sharma based on timelines set at the beginning of the semester.

24/08/2021.
Dr. Manjaree Pandit
(Dean Academic)

Submitted for approval

Dr. R.K. Pandit   4.8.2?
(Director)

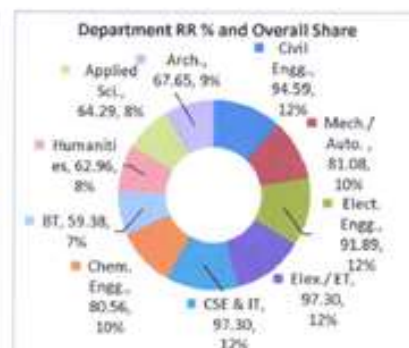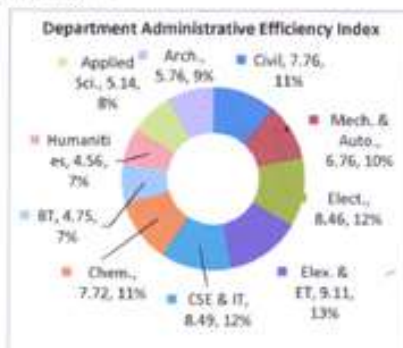**Sample of AEI Computation (July-December 2020)**

MADHAV INSTITUT⌐ OF TECHNOLOGY & SC⌐NCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

ADMINISTRATIVE EFFICIENCY INDEX (AEI) (Session - July to December 2020)
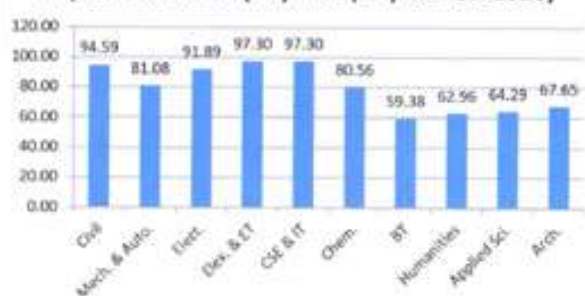
ADMINISTRATIVE EFFICIENCY INDEX	Civil	Mech. & Auto.	Elect.	Elex. & ET	CSE & IT	Chem.	BT	Humanities	Applied Sci.	Arch.	Total
Timely Reports Not Received	2	7	3	1	1	7	13	10	10	11	65
Below Average (Report recd. within 11-15 days)	0	1	0	1	1	0	0	1	0	0	4
Average (Report recd. within 8-10 days)	3	0	1	0	1	1	0	1	1	0	8
Good (Report recd. within 5-7 days)	3	1	1	1	3	1	1	2	1	2	16
Very Good (Report recd. within 2-4 days)	9	12	5	3	5	0	11	7	8	8	68
Excellent (Report recd. same day)	20	16	27	31	26	27	7	6	8	13	181
Timely Reports Received	35	30	34	36	36	29	19	17	18	23	277
ADMINISTRATIVE EFFICIENCY INDEX (AEI) (out of 10)	7.76	6.76	8.46	9.11	8.49	7.72	4.75	4.56	5.14	5.76	
Not Applicable (NA)	0	0	0	0	0	1	5	10	9	3	
Report Not Received (RNR) in %	5.41	18.92	8.11	2.70	2.70	19.44	40.63	37.04	35.71	32.35	
Reports Received (RR) in %	94.59	81.08	91.89	97.30	97.30	80.56	59.38	62.96	64.29	67.65	

Weight Assigned : - Excellent same day = 10; Very Good if within 2-4 days = 7; Good if within 5-7 days = 5; Average if within 8-10 days = 3; Below Average if within 11-15 days = 1; Work Not Done /reported even after 15 days = 0
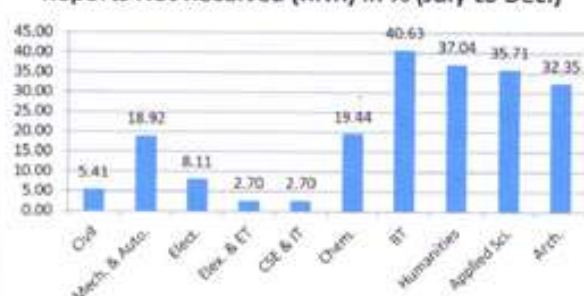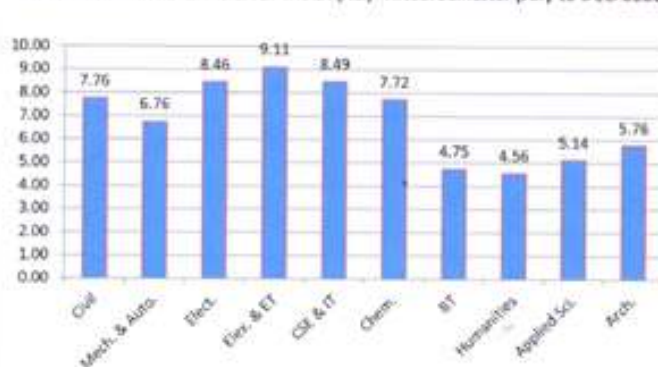

Combined Reports Administrative Efficiency Index

Department Administrative Efficiency Index

Department RR % and Overall Share

Reports Received (RR) in % (July to Dec. 2020)

Civil: 94.59, Mech. & Auto.: 81.08, Elect.: 91.89, Elex. & ET: 97.30, CSE & IT: 97.30, Chem.: 80.56, BT: 59.38, Humanities: 62.56, Applied Sci.: 64.29, Arch.: 67.65

Reports Not Received (RNR) in % (July to Dec.)

Civil: 5.41, Mech. & Auto.: 18.92, Elect.: 8.11, Elex. & ET: 2.70, CSE & IT: 2.70, Chem.: 19.44, BT: 40.63, Humanities: 37.04, Applied Sci.: 35.71, Arch.: 32.35

ADMINISTRATIVE EFFICIENCY INDEX (AEI) Virtual Semester (July to Dec. 2020)

Civil: 7.76, Mech. & Auto.: 6.76, Elect.: 8.46, Elex. & ET: 9.11, CSE & IT: 8.49, Chem.: 7.72, BT: 4.75, Humanities: 4.56, Applied Sci.: 5.14, Arch.: 5.76

Page 2 of 6

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

ADMINISTRATIVE EFFICIENCY INDEX (AEI) (Session : January to June 2020) No of parameters: 31

S. No.	Routine Information/Data (Soft Copy of report or intimation to be send Dean Academics E-Mail according to dead line)	Dead Line Date(s)	Civil Engg.	Mech./ Auto.	Elect. Engg.	Elex./ ET	CSE & IT	Chem. Engg.	BT	Humanities	Applied Sci.	Arch.	Remark (if any)
				Session : January to June 2020									
1	Uploading Newsletter on the department web page (Quarterly) (1. July to Sep., 2. Oct. to Dec., 3. Jan. to March & 4. April to June)	30-01-2020	10	10	10	10	10	10	0	0	10	10	
2	Updated quarterly APR (Annexure-X : APR Format) (30th January, 30th April, 30th July, 30th October) HOD/ Faculty In-charge	30-01-2020	10	10	0	5	10	5	0	0	0	1	
3	Question Paper Analysis based on COs, difficulty level, etc. (30th July & 30th January)	30/01/2020	10	10	10	10	10	10	10	10	10	0	
4	Report of Workshop to Discuss, Analyze and Review the Exiting End Semester Examination Question Papers (Signed Hard Copy)	03/02/2020	10	5	5	10	10	5	5	10	10	0	
5	Report of Orientation Programme for II to IV Year (1. An Introduction to OBE by OBE Coordinators 2. Importance of Self-learning through SWAYAM 3. Career Opportunities how to prepare for GATE 4. Importance of Feedback on (CO, PO, Faculty Feedback, Curriculum) in accreditation and quality improvement 5. Importance of attending special classes for remedial purposes 6. Institute MOODLE and the activities on MOODLE 7. Efforts made by institute for students' overall development like student chapters, clubs etc. 8. Importance of taking part in technical activities outside institute/submission of such documents to class coordinator 9. Introduction to schemes/Courses/ Evaluation Process (II Year students should be briefed about the Flexible Curriculum & various electives etc. by a suitable faculty member 10. Assigning projects to Final Year students based on Industrial/societal needs 11. Importance of internships 12. Any other information which the department feels is required to be clarified to the students to avoid complications and issues later (Regarding attendance, mid-term tests, tips for facing stuff in examinations etc.)	20/02/2020	10	1	3	3	10	0	0	NA	NA	0	

Page 3 of 6

6	Report of One day In-house Workshop "Innovative and Interactive Teaching Learning Practices", on or before 16th February, 2020 (Signed Hard Copy)	20/02/2020	1	0	0	10	10	10	10	10	10	0
7	Report of Parent-Teacher Association (PTA) is to be constituted at department level for each department. (at least one meeting per semester). HoD	24/02/2020	1	5	3	0	10	0	0	NA	0	10
8	Report of Departmental Alumni Association (DAA) is to be constituted at the department Level. HoD	24/02/2020	1	0	0	5	10	0	0	NA	0	10
9	Report of Parent Satisfaction Survey (Format in Annexure-VIII) (PTM after the First Mid-Sem Exam) Class coordinator through MOODLE during parent teacher meeting >25% Parents 10 Marks, >20% Parents 8 Marks, >15% Parents 6 Marks, >10% Parents 5 Marks, >5% Parents 4 Marks, <5% Parents 3 Marks	24/02/2020	0	0	10	3	10	0	0	NA	0	0
10	Responses of Faculty Feedback (FF) through GOOGLE FORM during First Mid Sem Exam >60% Responses 10, >55% Responses 9, >50% Responses 8, >40% Responses 6, Else category Responses 2	-	3	10	10	10	10	10	3	3	5	3
11	Report and List of Value Added Course Modules (30 hours duration). At the beginning of each session. (Odd & Even both) Value Added Course Team constituted by the HoD (Report Submission Odd Sem. - 01 to 05 Aug. and Even Sem. - 01 to 05 Feb.)	25/02/2020	0	0	1	0	10	0	0	NA	NA	0
12	Time Table of Remedial Classes (Yes/No) If Time Table for Remedial Classes to be Displayed on Departmental Web Page in prescribed Format. Identifying absentees, poor performers, etc. of First Mid-Semester Exam and displaying their Names on Notice Board Within 10 days of completion of Mid-Semester Exams, Class Coordinators (Monitored by HoD)	28/02/2020	0	0	3	10	0	0	0	0	0	0

Page 4 of 6

#	Activity	Timeline										
13	Action Taken Report on Student Faculty Feedback, (within 10 days of receiving the mail), HOD	07-03-2020	0	0	10	0	10	) 0	0	0	0	0
14	Report of Six Monthly Review of Ph.D. Students by Research Advisory Committee on 7th March, 2020 (Signed Hard Copy)	Within a week	1	1	10	10	10	NA	NA	NA	10	10
15	Action Taken Report on Academic Audit HOD/Faculty In-charge 15 days after Audit (Signed Hard Copy)	09/03/2020 & 16/03/2020	5	10	10	10	10	0	0	.0	0	0
16	Report of Student Feedback on Course Content/Curriculum (Format in Annexure-IV) (About 2-4 weeks before BoS meetings in April) Class coordinator through MOODLE	2 days before BoS Meeting	10	5	5	5	5	10	5	5	5	5
17	Report of Teacher Feedback on Course Content/Curriculum (Format in Annexure-V) (About 2-4 weeks before BoS meetings in April) HOD/Faculty in-charge through MOODLE	2 days before BoS Meeting	10	5	5	5	5	10	5	5	5	5
18	Responses of Faculty Feedback (FF) through GOOGLE FORM during Second Mid Sem Exam >60% Responses 10, >55% Responses 9, >50% Responses 8, >40% Responses 6, Else category Responses 2	-	5	10	10	10	5	10	10	5	10	5
19	Uploading Newsletter on the department web page (Quarterly) (1. July to Sep., 2. Oct. to Dec., 3. Jan. to March & 4. April to June)	30-04-2020	10	10	10	10	10	10	0	0	10	10
20	Report of Extension activities under NSS, Minimum 02 Activities during the Semester, NSS Unit MITS with Programme Officer (Nov./May)	15/05/2020	1	10	5	10	5	5	3	NA	3	3
21	Weekly Report of Online Classes conducted during the Lockdown. (18th March to 14th June)	-	10	5	10	10	5	3	5	10	5	5
22	No. of Online Classes Conducted during the Lockdown.	-	10	5	10	5	10	5	5	10	10	10
23	Conduction of Online Internal Viva-Voce during the Lockdown.	-	10	10	10	10	10	10	10	NA	10	10

MITS

09-05-2023 11:35:08

24	Conduction of Online Quiz during the Lockdown	-	5	5	10	10	10	5	5	5	5	3
25	Conduction of Online Assignment during the Lockdown	-	10	10	10	5	10	5	5	5	10	5
26	Summer Internship Modules developed and conducted during the Lockdown	-	10	10	10	5	10	10	0	10	10	10
27	Feedback received on Summer Internship Programs during the Lockdown	-	10	5	10	10	10	10	0	10	10	10
28	Conduction of Finishing School Program during the Lockdown.	-	10	5	10	5	10	10	10	NA	NA	0
29	Feedback of Finishing School Program during the Lockdown.	-	10	10	5	5	10	10	10	NA	NA	0
30	Conduction of Online Remedial/Additional Classes during the Lockdown	-	3	5	10	10	10	3	3	5	5	1
31	Updated quarterly APR (Annexure-X APR Format) (30th January, 30th June) HOD/ Faculty In-charge	30-06-2020	5	5	0	10	10	5	10	5	10	0

Note :- Excellent, if received same day = 10; Very Good, if within 2-4 days = 5; Good, if within 5-7 days = 3; Average, if within 8-15 days = 1; Timely report not received after 15 days = 0.

Compiled at Dean Academics Office based on time lines set at the beginning of Semester.

Dr. Manjaree Pandit
(Dean Academic)

Submitted for approval

Dr. R.K. Pandit
(Director)

[2] The Second IQAC initiative which has continuously improved for last 5-years is the analysis of student feedback & computation of Faculty Feedback Index (FFI)

Continuous Improvement

- The previous two modes of conduction of student feedback were Google forms & MOODL.
- Google forms were anonymous but feedback links were transferable.
- In MOODLE there was a scope for adding students from different classes /or deleting some unpleasant responses from students.
- All these anomalies are removed in the present IMS-based feedback system and reports are system generated.

Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies				
Incremental improvements made for the preceding five years				
FACULTY FEEDBACK INDEX (FFI)				
2017-18	2018-19	2019-2020	2020-21	2021-22
It was resolved that a uniform model should be used for the analysis of the feedback collected. Appreciation letter should be given to faculty members who get very good feedback	Mechanism for corrective actions and appreciation on feedback received from students for the improvement of quality in teaching & learning	Student Feedback on digital teaching and assessment during the lockdown due to COVID-19 (Format Revised)	Feedback was taken on MOODLE The regular practice of 'Feedback Collection on T-L-E and FFI computation' happened on institute MOODLE, for the first time, in August 2021 (on 24th - 25th August 2021). The report was presented	Faculty Feedback collection & Analysis through the institute IMS This system removes the anomalies and discrepancies which were present in the previous two modes of conduction of faculty feedback and computation of Faculty Feedback index (FFI), twice a semester.
The IQAC reviewed the Faculty Feedback Index (FFI) model.		Issuing of appreciation letters to faculty based on digital teaching feedback from students during the Covid-19 lockdown period was reported.		
Decided that feedbacks to be collected from students twice in a semester.				
The on-line mechanism created for this was reviewed and appreciated by the House.				
Computation Mechanism of FFI presented as a BEST PRACTICE				
Conduction	Online	Online	Online	Online
Mechanism	Google Forms	Google Forms	MOODLE	IMS

Review by IQAC on 19th August 2017

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR
(A Govt. Aided UGC Autonomous Institute Affiliated to RGPV Bhopal)

MINUTES OF IQAC

1. The first meeting of the IQAC was conducted on August 19ᵗʰ 2017 at 11.30 am.
2. A total of 20 members attended the meeting. Six members could not attend the meeting.
3. The Director briefed the house about the existing status, initiatives and best practices followed in the institute. The practice of conducting **Academic Audit** twice a year and **On-line Exit Survey** was appreciated.
4. It was suggested by the house that an Administrative Audit should also be conducted once every year.
5. The various formats employed for conducting academic audit, feedback analysis, question paper analysis, exit survey, academic progress report were reviewed. The following suggestions were given
   a) Academic audit: Two Academic Audits to be conducted every year, one by Internal Audit Committee and one by external experts.
   b) Feedback analysis: It was resolved that (i) a uniform model should be used for the analysis of the feedback collected.(ii) Appreciation letter/awards should be given to faculty members who get very good feedback. The director informed the house that the feedback will be collected on-line from next semester.
   c) Question paper analysis: To maintain quality and balance of question papers moderation should be carried out by external and internal members. Question paper setting should be based on course outcomes.
6. It was suggested that answer books of end-term examination should be shown to the students for maintaining transparency and credibility. Coding of answer books should be scrapped.
7. It was deliberated that a flexible academic curriculum should be implemented with the help of on-line learning platforms such as SWAYAM for taking advantage of the AICTE guidelines of credit framework for credit transfer through MOOCs.
8. The initiative of launching MITS-MOODLE was appreciated and it was suggested that faculty and students should be motivated to make maximum use of this e-learning platform. This platform will be very effective for teaching as well as evaluation of course outcomes.

Review in the meeting dated 24th February 2018

Item-4	To review the Feedback of stakeholders on curriculum and finalization of formats for the same
	➢ A summary of Feedback (collected from Employers on curriculum) was presented before the house.
	➢ Feedback on Course Outcomes (COs) and Programme Outcomes is already collected from students, alumni and employers.
	➢ It was decided that feedback should also be taken from parents who are capable of providing feedback on curriculum.
	➢ A parent-teacher meeting can be organized once in a semester for the same to identify such parents.

The FFI model reviewed by IQAC on 30th May 2018

8. The house was informed that a **Faculty Feedback Index (FFI)** has been computed for all faculty members based on the feedbacks collected from students twice in a semester. The on-line mechanism created for this was reviewed and appreciated by the House.

FFI was presented as a Best Practice in AQAR for year 2017-2018

Table I

ANALYSIS OF FEEDBACK OF COURSE FACULTY FROM STUDENTS (A sample)

Faculty:................... Class............. Departmenty.......... Course Title/code ....Session: ....Feedback: I/II

Attributes	Number of Student Responses in 5 Categories (Sample Size: 77)					Faculty Feedback Index (FFI)	Pointer
	Excellent (A)	V Good (B)	Good (C)	Average (D)	Below Average (E)		
Points	(5 points)	(4 points)	(3 points)	(2 points)	(1 point)	Out of 5	
Has good teaching ability	18	24	25	7	3	3.611	↓
Teaching style interactive/involving students	20	20	28	6	3	3.623	→
Adequate coverage of course content	19	20	28	7	3	3.584	↓
Voice is audible	24	23	20	7	3	3.753	↑
Good communication skills	23	19	26	6	3	3.688	→
Has ability to control class	21	23	23	7	3	3.675	→
Has ability to motivate/create interest in subject	20	20	25	8	4	3.571	↓
Relates subject with practical examples	17	25	22	10	3	3.558	↓
Is approachable & helping	25	16	27	6	3	3.701	↑
Provides study material/notes etc	21	21	24	8	3	3.636	→
Inspires students for good behavior and ethical conduct	23	19	26	6	3	3.688	→
Use of innovative teaching methods	21	20	27	6	3	3.649	→
Shows no gender bias	23	20	24	7	3	3.688	→
Course well designed and structured	24	16	26	6	3	3.693	↑
Average						3.651	
FFI =(5 x A)+(4 xB)+(3xC)+(2xD)+(1xE)/(A+B+C+D+E)							

Action Taken Report

Points of appreciation: Here all the attributes which are rated good in comparison to the average and shown by the 'up arrow' (by the conditional formatting option of MS Excel) are mentioned.

Points needing improvement: Here all the attributes which are rated poor in comparison to the average and shown by the 'down arrow' (by the conditional formatting option of MS Excel) are mentioned.

(Faculty)   HoD   Director

Review in IQAC meeting dated 27th June 2019

Item-9	To discuss the impact of on-line faculty feedback and action taken

- The house reviewed and appreciated the mechanism for corrective actions and appreciation on feedback received from students for the improvement of quality in teaching & learning.
- In view of guidelines of regularity and quality Assurance bodies, institute has implemented the feedback system for quality assurance and satisfaction of stack holders.
- The thirteen points student feedback was collected two times during the semester (Jan-19 to June, 19) on the basis of feedback the Faculty Feedback Index (FFI) is calculated on a scale of 5.
- In compliance to the guidelines given by the House in its previous meetings,
  (i) an appreciation letter will be issued to faculty members who have scored more than 4 (61 faculty members)
  (ii) Faculty members who have scored less than 3 will also be intimated and asked to improve their performance(17 faculty members)

The department wise details for January 2019 to June 2019 semester are as follows:

S. No.	Department	Appreciation	Improvement Required
1.	Civil Engineering	07	00
2.	Mechanical Engineering	08	03
3.	Automobile Engineering	03	--
4.	Electrical Engineering	03	--
5.	Electronics Engineering	09	01
6.	Electronics & Tele Communication Engineering	04	01
7.	Computer Science & Engineering	03	06
8.	Information Technology	03	01
9.	MCA	05	--
10.	Chemical Engineering	07	01
11.	Humanities	01	--
12.	Applied Science	08	04
	Total	**61**	**17**

Review in IQAC meeting dated 30th November 2019

Item-5	**To present the student feedback analysis for July-November 2019 Sessions and review the actions taken.**
	➤ The house recognized and appreciated the following practices of online collection of feedback from students on teaching learning, mechanism for analysis and corrective action and methodology based on FFI for issuing letter of appreciation or for improvement of their performance for the overall improvement of quality in teaching & learning: • *The feedback was collected from the newly admitted First Year students during the first midterm examination.* • *The feedback was analysed centrally by the Dean Academics office.* • *The report for individual faculty members and the class summary are both forwarded to the Heads of Department for immediate action so that improvement can be done for the remaining semester.* **Analysis & reward for faculty teaching first year students** • *Out of the 35 faculty members engaged in teaching the First Year classes 15 faculty members were rated in category 'very good' with Faculty Feedback Index (FFI) score of higher than 4.0 on a 5*

	point scale. • *Only two faculty members were rated below average due to the FFI score being below 3.* • *The remaining 18 faculty members were rated as 'good' with an FFI between 3 and 4.* **Analysis & reward for faculty teaching II year to Final year students** • *A total of 58 faculty members were rated as 'very good' and 37 faculty members were below average.* • *The detailed report is enclosed as Annexure-I.*

Review in IQAC meeting dated 29th August 2020 (only sample enclosed)

Item-9	**To report issuing of appreciation letters to faculty based on digital teaching feedback from students during the Covid-19 lockdown period**
	➤ The house appreciated the mechanism for issuing the Letter of Appreciation to faculty members (23 courses taught by 19 faculty members). The criteria used to identify these 23 courses (as implemented earlier also) was as follows: *1. The faculty gets an FFI score greater than 4 in both the feedbacks collected from students during the semester.* *2. The responses are received from at least 50 % of the students to whom the feedback links were sent by the department.*

Name of Department :		Mechanical Engineering: 01				
S. No.	Name of Faculty/Course Name with Code	Class/ Semester	FFI-I	FFI-II	Average	(Dept. Name) Interdisciplinary cases
1	Dr. Jyoti Vimal (Sub: Theory of Machines –II, 190401)	II Year (4th Semester) (Section - A)	4.45	4.29	4.37	
Name of Department :		Electrical Engineering: 02				
1	Prof. Shweta Kumari (Electrical Engineering Materials, 130602)	III Year (6th Semester) (Section - B)	4.18	4.09	4.14	

Review in IQAC meeting dated 11th December 2020

Item 10: To present the report of Student Feedback on virtual teaching-learning during this semester (July- August 2020).

➢ The Dean (Academics) of the Institute has appraised the house regarding following feedback mechanism adopted during virtual teaching-learning education due to prevailing condition of COVID-19:
- The online session started from July 15th for II year to Final year students. The first student feedback was collected on 24th& 25th August for which the format was also modified.
- The format was designed to map with the Digital Teaching-Learning Action Plan of the institute. A sample is enclosed below.
- **Thirty seven (37) faculty members received appreciation letters based on their FFI score, i.e if the FFI was greater than 4 out of 5 and the response rate was not less than about 50 %.**
 SAMPLE FORMAT(Faculty Feedback from Students before Mid Semester Test I)
 [Registered : 39, Link Sent : 25] Sample Size : 24

Attributes	Excellent	Very Good	Good	Average	Below Average	Performance Index (FFI)
The on-line classes which started from 15th July are conducted regularly	7	8	7	2	0	3.83
The online classes were useful to you	5	5	11	3	0	3.50
The PPTs/notes and other relevant study material was shared in timely manner (Availability of study material)	4	8	9	3	0	3.54
The quality of recorded lectures	5	5	10	3	1	3.42
Additional classes conducted for remedial purpose	6	4	10	4	0	3.50
The assignments helped you in learning	7	5	10	2	0	3.71
The weekly quiz conducted has motivated you to revise	6	5	10	2	1	3.54

Review in IQAC meeting dated 6th March 2021

Item. 3: To apprise the house about Summary of Feedback –I & II for July-December 2020 Semester and appreciation to faculty members based on FFI

➢ The **Director** of the Institute has apprised the house about the mechanism of FFI and methodology of appreciation to faculty on the basis of FFI. The House appreciated the efforts taken by faculty members as the number of student's responses received for the faculty feedback Index calculation is good.

- It is a practice to collect online feedback from students for all courses twice in a semester.
- The responses are used to compute the faculty feedback Index (FFI).
- The second feedback activity for II Year-IV year during the July-November semester was conducted on 23rd & 24th November 2020.
- The comments received from the students were mailed to the concerned faculty with copy to the Head of the Department, for corrective action.
- The full reports are also mailed similarly.
- **Based on the first & second feedback reports appreciation letters were given to the following 10 faculty members for 13 courses.**
- The criteria used to identify these 13 courses (as implemented earlier also) was as follows:
  - The faculty gets an FFI score greater than 4 in both the feedbacks collected from students during the semester.
  - The responses are received from at least 50 % of the students to whom the feedback links were sent by the department.

➢ **The summary is given below:**

Page 4 of 53

Review in IQAC meeting dated 25th June 2021

Item. 3 (A): To review the feedback mechanism for teaching-learning and its implementation: (UG II-III year & MCA) during the January-June 2021 semester *[Teaching-Learning and Evaluation]*.

➤ The house reviewed the following implementation status of feedback mechanism adopted in the Institute for UG II-III year & MCA students:

- The online session started from 15th January 2021 and closed on 30th April 2021 for II year & III year UG students.
- The first student feedback was collected in February and the second in April 2021 during the Mid-Semester-I and II examinations respectively.
- Following Twenty-three (23) faculty members received appreciation letters based on their FFI score: *(If the FFI was greater than 4 out of 5 and the response was not less than about 50 %)*.

(Second & Third Year – II & III year, UG and MCA)
(Session - January, 2021 to June, 2021) (Online FFI after Mid Semester - I, February, 2021 & Mid Semester - II, April, 2021)

Appreciation				
Name of Faculty with Course	Class/ Semester	Feedback - I	Feedback - II	Average
Mechanical Engineering				
Dr. Amit Ahirwar (Advance Production Technology, 120601)	III Year (6th Semester)	4.11	4.03	4.07
Automobile Engineering				
Name of Faculty with Course	Class/ Semester	Feedback - I	Feedback - II	Average
Prof. Utkarsh Shrivastava (Theory of Machines –Ist-190401)	II Year (4th Semester)	4.18	4.39	4.29

Review in IQAC meeting dated 8th October 2021 (FEED BACK WAS TAKEN ON MOODLE, for the first time)

Item 18: Feedback conducted on institute MOODLE successfully in August 2021 (24th -25th August 2021) from the III & IV year students

➤ The house reviewed the following report on Feedback conducted on institute MOODLE successfully in August 2021 (24th -25th August 2021) from the III & IV year students:

Faculty Feedback Index -III & IV year (24-25 August 2021)

S.No	Department Name	Response(%)	DFI	Total Faculty	Faculty (FFI>4)
1	Civil Engineering	46.1	3.88	19	7
2	Mechanical Engineering	38	3.9	25	11
3	Electrical Engineering	66.13	3.8	18	4
4	Electronics Engineering	53.35	3.82	16	6
5	Computer Science & Engineering	47.41	3.94	20	9
6	Computer Science & Engineering (MCA)	66	3.93	5	3
7	Information Technology	64	3.95	12	3
8	Chemical Engineering	66	3.92	10	5

The report is enclosed in Annexure-XI

Item 19: Appreciation Letters to faculty members based on online Feedback for the I year, II Semester Teaching conducted during the COVID second wave

➤ The Dean Academics of the Institute has appraised the house that, it has been a regular practice to issue appreciation letters to faculty members based on their two consecutive FFI values in the semester being greater than 4.

— The summary of appreciation letters issued so far is given below:

FEEDBACK APPRICIATION LETTER SUMMARY				
Jan-June 2019	July-Dec 2019	Jan-June 2020	July- Dec 2020	Jan-June 2021
61	51	23	13+31 (44)	24+15 (39)

Review in IQAC meeting dated 23rd December 2021 (FEEDBACK WAS TAKEN ON MOODLE

Agenda of the Internal Quality Assurance Cell (IQAC) meeting on 23rd December 2021

Item 23: Feedback on T-L-E collected on institute MOODLE in November 2021 (26th - 27th November 2021) from the II to Final year students *(Teaching Session ended on 27th November 2021)*

Faculty Feedback Index -III to Final Year (26-27 November 2021)

S.No.	Department Name	% Response	DFI*	Total Faculty	Faculty (FFI>4)
1	Civil Engineering	34.64	3.88	16	8(50%)
2	Mechanical Engineering	34.45	3.84	25	9 (36%)
3	Electrical Engineering	62	4.01	17	9(53%)
4	Electronics Engineering	53.61	3.95	15	8(53%)
5	Computer Science and Engineering	51.41	4.11	16	14(87.5%)
6	Information Technology	50.09	3.98	6	3(50%)
7	Chemical Engineering	39.75	4.13	5	4(80%)
8	Architecture	35.53	3.97	12	6(50%)
9	Department of Management	58.06	4.07	10	6(60%)
10	MCA	66.08	4.28	5	4(80%)

Review in IQAC meeting dated 25th March 2022

Item 27: Action Taken Report on 'teaching-learning feedback', (Second, Third & Fourth Year Classes), July-December 2021

➢ The Dean Academics has reported that as per IQAC initiative appreciation & concern letters were issued to following faculty members based on FFI-I & FFI-II for Second, Third & Fourth Year Classes:

FEEDBACK SUMMARY OF ONLINE CLASSES DURING [COVID-19]
(Session - July to December, 2021)

FACULTY FEEDBACK SUMMARY (II to IV YEAR BOTH FFI)
[(Online FFI I & II on MOODLE (II Year (September 2021 & December 2021)) & ((III & IV Year (August 2021 & November 2021))]

Appreciation

Name of Faculty	Subject Code	Subject Name	Class/ Semester	Feedback - I	Feedback - II	Average
Civil Engineering						
Dr. Abhilash Shukla	110713	Advanced Structural Design (RCC)	VII	4.71	4.06	4.39
Dr. Hemant Shrivastava	110715	Advanced Structural Analysis	VII	4.15	4.05	4.10
Electrical Engineering						
Prof. Vishal Chaudhary	130313 (A)	Network Analysis	III	4.12	4.12	4.12
Prof. Rahul Sagwal	130501 (B)	Signals and systems	V	4.30	4.44	4.37
Prof. Praveen Bansal	130503 (H)	Electrical Machine-II	V	4.27	4.42	4.35
Electronics Engineering						
Prof. Deep Kishore Parsediya	140312	Network Theory	III	4.28	4.07	4.18
Dr. R. P. Narwaria	140312	Network Theory	III	4.30	4.06	4.18
Prof. Pooja Sahoo	140314	Signal and System	III	4.22	4.05	4.14
Dr. Sandeep Sharma	140314	Electronic Measurement & Instrumentation	III	4.31	4.24	4.28
Dr. Hemant Choubey	200311	Electronics Circuit Design	III	4.43	4.26	4.35
Prof. Deep Kishore Parsediya	OC-3	MEMS & Mechatronics	VII	4.11	4.29	4.20
Computer Science & Engineering						
Prof. Hemlata Arya	150313 (B)	Computer Graphics	III	4.01	4.25	4.13
Prof. Aishwarya	150501	Discrete Structure	V	4.12	4.08	4.10
Prof. Arun Kumar	900220	R Programming	VII	4.10	4.09	4.10
Chemical Engineering						
Pof. Anish P. Jacob	170313	Chemical Engineering Thermodynamics	III	4.02	4.13	4.08
Dr. D. K. Jain (MAC)	100001	Engg. Mathematics-II	III	4.18	4.35	4.27
Dr. Rakesh K. Dubey	170714	Petrochemical Technology	VII	4.37	4.34	4.36
Information Technology						
Prof. Neha Bhardwaj	160311	CSO	III	4.00	4.00	4.00
Prof. Abhishek Dixit	160312	Design & Analysis of Algorithms	III	4.12	4.18	4.15
Prof. Saumil Maheshwari	230304	DBMS	III	4.30	4.21	4.26
Prof. Namrata Agrawal	160501	Discrete Structures	V	4.02	4.17	4.10
Dr. Akhilesh Tiwari	160714	Data Mining & Predictive Modelling	VII	4.34	4.58	4.46
Prof. Abhishek Dixit	900220	R Programming	VII	4.60	4.29	4.45

Minutes of IQAC Meeting held on 25th March 2022

Name of Faculty	Subject Code	Subject Name	Class/ Semester	Feedback - I	Feedback - II	Average
Mathematics and Computing						
Dr. D. K. Jain	250302	Discrete Mathematical Structures	III	4.40	4.58	4.49
Dr. D. K. Jain	100001	Engg. Maths-II	III	4.18	4.35	4.27
Prof. Mir Shahanawaz Ahmad (CSE)	250303	Operating System Concepts	III	4.32	4.32	4.32
Prof. Prabhakar Sharma	250304	Data Structures and Algorithms	III	4.42	4.42	4.42
Architecture						
Ar. Versha Sinha	210311	Architectural Design III	III	4.24	4.46	4.35
Ar. Pranshi Jain	210313	Graphics III	III	4.48	4.54	4.51

IMPROVEMENT

Automobile Engineering

Name of Faculty	Subject Code	Subject Name	Class/ Semester	Feedback - I	Feedback - II	Average
Dr. Harbhajan Ahirwar	190714	Two and Three Wheeler Technology	VII	-	2.44	2.44

Compiled by - Mrs. Rajni Sharma
(Dean Academics Office)

submitted for information.

07/02/2022
Dr. Manjaree Pandit
(Dean Academic)

Dr. R.K. Pandit 7-2-22
(Director)

Report.

(Sections are counted as separate courses)

① Out of 261 (UG) courses offered during July-Dec 2021 session III, V and VII semester, **29 course** facult have been appreciated due to (1) Resonse being more than 50% (ii) FFI I & II both being greater than 4 out of 5.
This amounts to 10% faculty/courses. Permission may be given to issue appreciation letters to these faculty.

② Only 02 faculty performance is found to be below the mark i.e. less than 3, FPI.

③ PG courses are not being considered MP 07/02/2022 for appreciation as per practice.

Revisited qup 7-2-22

Item 9: To review the conduction of faculty feedback exercise through the IMS mechanism

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR
(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

Report

on

The first Faculty Feedback Process through the institute IMS

For

II, IV & VI semester students

On

7th & 8th May 2022

This system removes the anomalies and discrepancies which were present in the previous two modes of conduction of faculty feedback and computation of Faculty Feedback index (FFI), twice a semester.

Initially, the FFI was commuted using Google forms. Though the process was generally successful and was anonymous there were some lapses. The feedback links were transferable and could be sent to students other than those who were taking the course.

Then feedback was conducted through the MOODLE account of the faculty. This system was very successful, only those students who were registered for a particular course could take part in this process after logging in to their MOODLE accounts. Though, the system was quite fool-proof, there was a scope of adding students of a different class and/or deleting some unpleasant responses/comments by the students.

All these anomalies are removed in the present IMS based feedback system and the roles of faculty/feedback coordinator/HoD/Admin are clearly defined. There is no manual intervention as all the data is system generated.

The activity was successfully conducted on 7th -8th May 2022, FFI was computed very efficiently and the following reports were generated automatically:

1. Individual faculty feedback: All questions/metrics showing number of students based on their rating given to faculty in each of the five levels (from 'below average' to 'excellent'), QV for each metrics and the average FFI
2. Department Summary giving average FFI of each faculty, average % response of the department and the average DFI (Departmental feedback index)

After the analysis, some modifications are proposed and small errors pointed out as follows:

Page 1 of 2

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR
(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

— *Information about the registered students should be a 'manual entry' field to cater to the flexible requirements of DEs, OCs etc.*

— *The course category (OC/DE/DC/MAC etc.) must also appear in the report, along with the course title.*

— *In the department summary page, there is spelling error (in "Average Response" at 2 places) to be corrected.*

— *On individual faculty feedback page "The name of the department' field has not been filled. This lapse must be pointed out to the concerned to whom this task was assigned.*

— *After the FFI-I and FFI-II are computed, the report of faculty deserving appreciation or requiring improvement need to be generated (based on the criterion defined/updated from time to time by the IQAC of the institute) for removing manual intervention completely from this important process.*

— *Title can be added to the department summary page as "Department Summary)*

— ***The 'ATR generation' feature can be added in the HoD role so that the faculty wise ATR can be generated by selecting the relevant/specific comments from the students.*** *The following format can be used*

Name of faculty*	Sample specific comment(s) seeking attention*	Sample specific comment(s) seeking appreciation*	Action Taken#

* to be selected by the HoD from data
 # to be inserted by the HoD

— *There were some errors by specific departments (in selecting students in OC courses etc. resulting in separate entries for the same course) for which necessary training has already been given.*

M. Pandit
23/5/2022
Dr. Manjaree Pandit
(Dean Academics)

Submitted for information & necessary action

Comments may be informed
to Dr. R.R. Makwana / Shri Atul
Chauhan and Prof. P. Sharma
for inclusion by CRISP at
the earliest.

Dr.R.K.Pandit
(Director)

Gupt
24.5.22

File Description	Document
Any additional information	**View Document**
Link for 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 and recorded the incremental improvement in various activities (For first cycle - Incremental improvements made for the preceding five years with regard to quality For second and subsequent cycles - Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives   )

Response:

- The IQAC performs a review of all quality practices including T-L. The various reports on are uploaded on the web page of the IQAC.
- The two practices given here are

1. Regular Academic Audit

- The institute periodically reviews all academic practices twice a year, one by internal committee, other by external experts.
- The reports are presented in the IQAC for review.
- The review parameters are divided into three criteria. Criterion I: Availability of Records & Data Management, Criterion II: Teaching Learning Practices and Criterion III: Quality Improvement Initiatives.

2. Regular reviews of teaching-learning process by the IQAC

- Quality practices such as 'development & implementation of the Flexible Curriculum', 'slow-fast learner mechanism', attainment of COs & POs, remedial class mechanism, analysis of feedback, question paper, curriculum, status of MOOC development at MITS.
- Reports/ compliance on all regular practices are presented in the quarterly meetings of the IQAC.
- The IQAC sets deadlines for quality practices/activities and a six monthly monitoring through the "Administrative Efficiency Index" (AEI) is carried out.

A few samples are attached below**:**

ACADEMIC AUDIT SUMMARY & COMPARISON WITH PREVIOUS AUDIT (Presented in IQAC meeting dated 23rd December 2021)

Item. 4: To review the Academic Audit conducted by External Experts during 10-11, December, 2021

> The Dean Academics of the Institute has appraised the house about Academic Audit conducted by External Experts during 10-11, December, 2021. Following is the brief report of Academic Audit:

- The institute follows the practice of conducting Academic Audit twice in an Academic Year, once by Internal Audit Team and one by the external experts.
- The first Academic Audit of the previous year was conducted on 22nd & 29th February 2020 was reviewed in the IQAC meeting on 3rd March 2020 vide Item No 11.
- Looking at the Covid-19 scenario, the parameters were reduced from 50 to 40 in the second Academic Audit conducted during 27th August to 3rd September 2020. The report was reviewed in the IQAC meeting on 11th December 2020 vide Item No 3.
- Due to the NBA peer team visit in from 19th to 21st February 2021, the Academic Audit had to be postponed.

Results of Academic Audit

(10th & 11th December 2021)

Engineering & Allied Departments

Review Period: (July 2020 - December 2020, January 2021- June 2021 & July 2021 – November 2021)

S. No.	Name of the Department	CIVIL	MECH /AUTO	ELECT	ELEX /ET	CSE	IT	CHEM	MAC	ARCH	HU	APPL SCI	MG MT
Points Obtained		78	79	83	80	78	78	66	42	76	38	56	53
Aggregate Points		100	100	100	100	100	100	100	60	100	55	80	70
Percentage		78.0	79.0	83.0	80.0	78.0	78.0	66.0	70.0	76.0	69.0	70.0	75.7
Rank (Overall)		IV	III	I	II	IV	IV	IX	VII	V	VIII	VII	VI

Results of Previous Academic Audit

(27th August to 3rd September 2020)

Engineering & Allied Departments

Criterion	CE	ME	AU	EE	EX	ET	CSE	IT	CHEM	APP. SCI	HU	ARCH
Criterion I: Availability of Records & Data Management	19	21	24	26	16	14	31	30	24	17	10	16
Rank (Criterion - I)	VI	V	IV	III	VIII	IX	I	II	IV	VII	X	VIII
Criterion II: Teaching Learning Practices	23	21	23	33	21	20	26	30	21	17	9	18
Rank (Criterion- II)	IV	V	IV	I	V	VI	III	II	V	IX	VIII	VII
Criterion III: Quality Improvement Initiatives	38	47	52	59	41	51	60	70	40	28	25	32
Rank (Criterion - III)	IX	VI	IV	III	VII	V	II	I	VIII	XI	XII	X
Total Points Obtained	80	89	99	118	78	85	117	130	85	62	44	66
Aggregate Points	195	195	190	195	195	190	195	195	190	185	175	195
Department	CE	ME	AU	EE	EX	ET	CSE	IT	CHEM	APP SC	HU	ARCH
Percentage(Present)	41	46	52	61	40	45	60	67	45	34	25	34
Rank (Overall)	VII	V	IV	II	VIII	VI	III	I	VI	X	XI	IX
Percentage(Previous)	62	76	58	68	62	54	69	75	56	64	55	61
Rank (Overall)	VI	I	IX	IV	VII	XII	III	II	X	V	XI	VIII

ACADEMIC AUDIT REPORT (Presented in IQAC meeting dated 11th December 2020)

Item. 3: To review the results of the Academic Audit conducted during August-September 2020

➢ The house reviewed the results of Academic Audit conducted during 27th August to 3rd September 2020. **Shri. Prashant Mehta**, Member, Board of Governors and **Er. Ramesh Agrawal**, Secretary, SECS & Member BoG have appreciated the performance of IT, Electrical Engineering & CSE Departments and also suggested to take necessary corrective measures in the departments, where the rank/performance is suddenly degraded or constantly lowest.

  ▪ The institute follows the practice of conducting Academic Audit twice in an Academic Year.
  ▪ The previous Academic Audit conducted on **22nd & 29th February 2020** was reviewed in the IQAC meeting on 3rd March 2020 vide Item No 11.
  ▪ Looking at the Covid-19 scenario, the parameters were reduced from 50 to 40 in the Academic Audit conducted during 27thAugust to 3rdSeptember 2020.

ACADEMIC AUDIT REPORT (Presented in IQAC meeting dated 3rd March 2020)

Item-11	To brief the House about the Academic & Administrative Audit by external experts

➢ The Institute conducts six monthly Academic Audits as a standard practice, one in August by the Internal Audit Committee and the other in February by an external team.

➢ The Academic Audit was conducted as notified in the Academic Calendar on 22nd February and 29th February.

➢ The ATR will be presented in the next meeting along with the comparative status of departments with respect to previous audits.

The report of academic audit conducted on 22nd & 29th February 2020 is enclosed herewith.

ACADEMIC AUDIT & Comparison with Previous Audit REPORT

(Presented in IQAC meeting dated 30th November 2019)

Item-15	To review the results of the **Academic Audit** and status of the departments over past t years

> The house reviewed the following results of the **Academic Audits** and status of the departments over p two years and suggested to continue this practice of academic audit as Institute has already planned NBA accreditation of all UG eligible courses according to pre-qualifier status:
> - The *Academic Audit* was conducted by the *Internal Audit Committee on 31st August,* *September and 28th September 2019.*
> - *The department wise status is as follows:*

Academic Audit-V, Date - (31.8.2019 & 01.9.2019)

CIVIL	MECHANICAL	AUTOMOBILE	ELECTRICAL	ELECTRONICS	ET
139	165	144	159	141	143
250	250	250	250	250	250
55.60 %	66.00%	57.60%	63.60%	56.40%	57.20%
IX	III	V	IV	VII	VI

CSE	IT	CHEMICAL	BT	APP. SCIENCES	HUMANITIES	ARCHITECTURE
167	168	140	134	107	87	135
250	250	250	225	190	185	245
66.80	67.20%	56.00%	59.56%	56.32%	47.03%	55.10 %
II	I	VIII	I	II	IV	III

Comparison of Academic Audit (2016 to 2019)

Branch	AUDIT-5 (31-08-2019)	AUDIT-4 (02-03-2019)	AUDIT-3 (25-08-2018)	AUDIT-2 17-02-2018	AUDIT-1 (18-02-2017)
CIVIL	55.60	51.94	50.80	46.43	72.17
MECHANICAL	66.00	74.08	66.00	70.00	72.17
AUTOMOBILE	57.60	66.41			
ELECTRICAL	63.60	69.90	55.20	70.71	70.43
ELECTRONICS	56.40	54.49	50.80	57.86	57.39
ELEX. & TELE.	57.20	52.15			
CSE	66.80	68.78	56.80	60.71	80.00
IT	67.20	66.02	NA	NA	NA
CHEMICAL	56.00	54.29	45.60	64.00	52.17
BIOTECHNOLOGY	59.56	44.87	49.36	76.80	63.48
APPLIED SCIENCES	56.32	33.81	25.26	60.87	66.25
HUMANITIES	47.03	44.49	29.00	55.45	NA
ARCHITECTURE	55.10	49.90	43.40	65.38	75.24
MCA	32.77	51.67	56.19	49.17	

Review T-L activities/practices at periodic intervals through IQAC

IQAC meeting dated 19th August 2017

Item No.	Review of Teaching-Learning Processes /Practices/Outcomes
5	**Academic Audit** twice a year and **on-line Exit Survey** Formats designed for academic audit, feedback analysis, question paper analysis, exit survey, academic progress report were reviewed.

IQAC meeting dated 24th February 2018

Item No.	Review of Teaching-Learning Processes /Practices/Outcomes
2	Guidelines for Flexible Curriculum
4	Stakeholder feedback, Feedback on Course Outcomes (COs) and Programme Outcomes (POs)
9	Existing status of T-L practices
11	Examination reforms
12	Setting up targets for attainment of COs, POs and PEOs

IQAC Meeting on 30th May 2018

Item No.	Review of Teaching-Learning Processes /Practices/Outcomes
1	Remedial Classes to be renamed as 'Additional Classes' to avoid stigma Compliance of 'uploading learning material on MOODLE'
2	Conduction of 'Value Added Courses'
4	Adjunct Faculty/ Resource Persons from Industry
6	Faculty training programmes organized under QIP, GIAN schemes of MHRD and under TEQIP-III
8	Modules developed for the In-House Summer Internship Programme
9	Summary of on-line Courses conducted in the institute through SWAYAM/NPTEL
10	Activities conducted by professional society chapters/students clubs for Holistic Development

IQAC Meeting on 8th September 2018

Item No.	Review of Teaching-Learning Processes /Practices/Outcomes
1.2	Transparency in evaluation of mid-semester examination papers
1.6	Records of internal marks allotment procedure

IQAC meeting 23.12.2021

Item No.	Review of Teaching-Learning Processes /Practices/Outcomes
4	Academic Audit conducted by External Experts during 10-11, December, 2021
8	Enrolment in Open Courses
17	The status of OBE activities in the institute
20	The status of MOOC development at MITS

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

6.5.3 Quality assurance initiatives of the institution include:

1. Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analysed and used for improvements
2. Collaborative quality initiatives with other institution(s)
3. Participation in NIRF
4. Any other quality audit recognized by state, national or international agencies (ISO Certification)

Response: All of the above

File Description	Document
Upload e-copies of the accreditations and certifications	[View Document](#)
Institutional data in prescribed format	[View Document](#)
Link for additional information	[View Document](#)
Paste web link of Annual reports of Institution	[View Document](#)

Criterion 7 - Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

7.1.1 Measures initiated by the Institution for the promotion of gender equity during the last five years.

Response:

MITS Gwalior is known for its academic quality and culture across the nation. MITS strives to adhere to a congenial workplace culture. As it is correctly quoted by Emma Watson, "It's time that we see Gender as a spectrum instead of two sets of opposing ideals", the Institute has constituted the Girls Grievance Cell with the prime objective to address all types of grievances related to female students in the premises. The Cell actively organizes various workshops, events, and seminars with the objective to promote gender equality and to create an atmosphere that is conducive to the all-around development of female students. By providing necessary support and assistance, the Girls Grievance Cell ensures that girl students feel safe and secure in college premises. The cell actively seeks the involvement of both Genders and also promotes awareness regarding the LGBTQ community. The prime objectives of the Girls Grievance Cell comprise of -

1. To create and ensure a safe environment.

2. To create an atmosphere promoting equality and gender justice.

3. To make arrangements for appropriate psychological, emotional, and physical support (in the form of counseling, security, and other assistance)

4. To highlight the importance of health and hygiene.

5. To conduct awareness programs to emphasize the rights of women.

6. To develop a multi-disciplinary approach for overall personality development.

The Cell organizes events according to its yearly Action Planner to educate students about equality and justice. Some of the most eloquent events conducted by GGC are:-

1. Understanding gender sensitization.

2. Workshop on "SAKSHAM and UGC guidelines-Awareness program"

3. Social media Campaign on India's Recognition Through Gender Parity

4. Discussion on Social Biases through Open mic event – "GUFTAGU" etc.

5. Group discussion on GENDER BLINDNESS.

6. Workshop on Violence Against Women (VAW).

The Institute has also established an **Internal Complaint Committee (ICC)** to check the menace of sexual harassment and violence against women and girls.

In order to cater to the security needs, the Institute has hired adequate and well-trained security personnel including a good proportion of **women security staff**. Besides this, the Institute has a state-of-the-art **surveillance system, whereby more than 100 cameras** are installed at various places including Main entrances, Canteens, Corridors, libraries, etc. The hostels have been equipped with various **gym** equipment to reinforce the physical health of students. In order to ensure the safety and comfort of girls, **female sweepers** are appointed **for girls' restrooms.**

Additionally, **common rooms** are available in the Institution, equipped with tables, chairs, and washrooms, exclusively for female students and there is a **daycare** facility for employees also.

Many times it is observed that the students are under tremendous pressure that stems from various aspects like expectations about excelling academically, adjusting to the change in environment, family pressure, family problems, striking a balance between academics, extra-curricular activities, relationship issues, and sometimes, psychological pressures. To address such issues, Institute offers free of cost counseling services through a permanent well qualified full-time **counselor** holding a doctoral degree in clinical psychology.

File Description	Document
Specific facilities provided for women in terms of: a.Safety and security b.Counselling c.Common Rooms d. Day care center for young children e. Any other relevant information	**View Document**
Annual gender sensitization action plan	**View Document**

7.1.2 The Institution has facilities for alternate sources of energy and energy conservation measures

    1.**Solar energy**
    2.**Biogas plant**
    3.**Wheeling to the Grid**
    4.**Sensor-based energy conservation**
    5.**Use of LED bulbs/ power efficient equipment**

Response: A. 4 or All of the above

File Description	Document
Geotagged Photographs	**View Document**
Any other relevant information	**View Document**

7.1.3 Describe the facilities in the Institution for the management of the following types of

degradable and non-degradable waste (within 500 words)

- **Solid waste management**
- **Liquid waste management**
- **Biomedical waste management**
- **E-waste management**
- **Waste recycling system**
- **Hazardous chemicals and radioactive waste management**

Response:

- **Solid waste management**- Two-bin system has been implemented in the institute to collect the biodegradable and non-biodegradable waste separately. The biodegradable waste generated are dumped into compost plant and the non-biodegradable waste is sold to theagency for recycling.
- **Liquid waste management**- The institute has established two Sewage Treatment Plants (STP) which has the capacity of 1.5 KLD for the disposal of liquid effluent. After the STP process the treated water is used for the irrigation of agriculture field, grounds, parks etc in the campus.
- **E-waste management-** E-waste from college is collected and under the process of safe disposal through therecyclers who are registered by the Central Pollution Control Board of Govt of India.
- **Hazardous chemicalsand radioactive waste management**- Chemicals used in the laboratory are dilute acids only. Otherwise the chemicals are safe and not hazardous.
- **Waste recycling system**- The institute has adopted an effective recycling system where the biodegradable solid wastes are collected from the campus and dumped in the compost unit to produce organic fertilizers.The fertilizer thus produce is used for enhancement of soil nutrition. Besides the Institute also educate concern in the campus about the significance of waste recycling system.

   Additional information: https://mitsgwalior.in/wastemanagement.php

File Description	Document
Relevant documents like agreements/MoUs with Government and other approved agencies	[View Document](#)
Geotagged photographs of the facilities	[View Document](#)

7.1.4 Water conservation facilities available in the Institution:

1. **Rain water harvesting**
2. **Borewell /Open well recharge**
3. **Construction of tanks and bunds**
4. **Waste water recycling**
5. **Maintenance of water bodies and distribution system in the campus**

Response: A. Any 4 or all of the above

File Description	Document
Geotagged photographs / videos of the facilities	[View Document](#)
Any other relevant information	[View Document](#)
Link for any additional information	[View Document](#)

7.1.5 Green campus initiatives include:

1. **Restricted entry of automobiles**
2. **Use of Bicycles/ Battery powered vehicles**
3. **Pedestrian Friendly pathways**
4. **Ban on use of Plastic**
5. **landscaping with trees and plants**

Response: A. Any 4 or All of the above

File Description	Document
Various policy documents / decisions circulated for implementation	[View Document](#)
Geotagged photos / videos of the facilities	[View Document](#)

7.1.6 Quality audits on environment and energy are regularly undertaken by the Institution and any awards received for such green campus initiatives:

1. **Green audit**
2. **Energy audit**
3. **Environment audit**
4. **Clean and green campus recognitions / awards**
5. **Beyond the campus environmental promotion activities**

Response: A. Any 4 or all of the above

File Description	Document
Reports on environment and energy audits submitted by the auditing agency	[View Document](#)
Certification by the auditing agency	[View Document](#)
Certificates of the awards received	[View Document](#)
Any other relevant information	[View Document](#)

7.1.7 The Institution has disabled-friendly, barrier free environment

1. **Built environment with ramps/lifts for easy access to classrooms.**
2. **Divyangjan friendly washrooms**
3. **Signage including tactile path, lights, display boards and signposts**
4. **Assistive technology and facilities for Divyangjan accessible website, screen-reading software, mechanized equipment**
5. **Provision for enquiry and information : Human assistance, reader, scribe, soft copies of reading material, screen reading**

Response: A. Any 4 or all of the above

File Description	Document
Policy documents and information brochures on the support to be provided	View Document
Geotagged photographs / videos of the facilities	View Document
Details of the Software procured for providing the assistance	View Document

7.1.8 Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities (within 500 words).

Response:

The institute has taken several initiatives to provide inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities. The institute has assigned the responsibilities to following officials including different grievance redressal cells to ensure inclusive environment in the Institute without considering anyone's racial or cultural background. The following officials are regularly organizing/celebrating various talks, National and International Days, Events, Festivals and cultural activities to bring tolerance and harmony among the students, faculty, staff and other stakeholders.

1. Dean Academics
2. Dean Student Welfare
3. Registrar
4. Head of the Departments
5. Professor In-charge for the celebration of National/International commemorative days, events/festivals
6. NSS Officer & Departmental NSS Coordinators
7. Student Development Cell
8. Equity Coordinator
9. Cultural Coordinator
10. Coordinator Ek Bharat Shreshtha Bharat Programme
11. Gender Sensitization Committee
12. Sports Officer
13. Club Faculty Coordinators
14. Class coordinators

15. Wardens
16. Faculty Mentors

The details of administrative responsibilities are available on **https://web.mitsgwalior.in/administration/administrative-responsibilities** Institute has defined the code of conduct for faculty, Staff and students to be followed by each one of them irrespective of their cultural, regional, linguistic, communal socioeconomic and other diversities. The details are available on institute website. Understanding the fact that students belongs to different caste, religion, regions, the Mandatory Audit Courses **"Indian Constitution & Traditional Knowledge"** is made mandatory to all B.Tech. students of all the disciplines to create a culture of intolerance among students towards cultural, regional, linguistic, communal socio economic and other diversities.

Institute is organizing various initiatives in the form of celebration of National/International commemorative days, events/festivals, activities pertaining to NSS, NCC, students clubs, sports, cultural and other such activities by bringing students and teachers with diverse background on single platform for creating inclusive environment ,These functions help in developing tolerance harmony towards culture ,region and linguistics and also communal social economics and other diversities.

The Institute faculty, staff and students collaboratively celebrate/conduct various cultural and regional festivals, Independence day, Republic day, New-year's day, Fresher Party, teacher's day, induction programme, orientation and farewell program, rally, oath, plantation, Youth day, Women's day, Yoga day, New Year celebration etc. Religious ritual activities are performed in the Hostels /campus. Motivational lectures of eminent persons of the field are arranged for all-round development of the students for their personality development and to make them responsible citizens following the national values of social and communal harmony and national integration. In addition to academic and cultural activities, Institute has world class infrastructures for a variety of sports activities for the physical development of the students.

https://web.mitsgwalior.in/index.php/inclusive-environment

File Description	Document
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	[View Document](#)

7.1.9 Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens (within 500 words).

Response:

The Institute **Induction Programme** for Faculty- The Induction Programme is organized for newly recruited faculty members after every recruitment process.

Induction Programme for Students-As per AICTE guidelines, the Student Induction Program is organized for newly admitted students of UG and PG students.

Independence Day- It is celebrated every year on 15th August to commemorate the day when a country gained independence from its former colonizers. The celebrations of this day include Flag-Hoisting Ceremonies, Parades, Concerts and Cultural Festivals, Rallies and Speeches, Sporting Events. Hoisting of the national flag, symbolizing the country's independence and sovereignty. The ceremony is often accompanied by patriotic songs and speeches.

Republic Day It is celebrated every year on January 26th to commemorate the adoption of the Indian Constitution. The day is celebrated with much fanfare, patriotic fervor and Parades to showcase the country's cultural and military heritage. It celebrated by hoisting the national flag, singing the national anthem, and participating in patriotic rallies and parades in the institution. The Director give speech during the celebration in which the flag of the India raised and a warm message of patriotism spread. College organizes cultural programs to celebrate the day and come together to organize events that showcase their cultural traditions and customs

The students and faculty under the **NSS, NCC and various clubs** are organizing various activities to sensitize students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens.

The Department of Humanities has introduced a course titled **Indian Constitution and Traditional Knowledge** in the Academic Session 2017-18. This is an audit Course and is offered to students twice a year to III Year students during V & VI Semester. The course outline includes theory classes, assignments, and moodle quizzes.

The participation of students has remained stable since the inception of the course. During the first year student students activities were low and were increased in subsequent years. Till date 442 students have participated in the program out of which have been awarded certificates for successfully completing the course.

Details of activities that inculcate values necessary to transform students into responsible citizens :

Year/Academic Session	Enrolment	Assignments	Quizes	Group Discussions
Jul-17	64	2	2	-
Jan-18	45	2	2	-
Jul-18	68	2	2	-
Jan-19	56	2	2	-
Jul-19	67	2	4	-
Jan-20	81	6	12	1
Jul-20	61	4	8	1
	442	**20**	**32**	**02**

The Institute has developed a **MOOC course on Indian Constitution & Traditional Knowledge** to inculcate the constitutional obligations: values, rights, duties and responsibilities of citizens in the stakeholders of Institute

https://web.mitsgwalior.in/academics/quality-initiatives/mits-moocs?view=article&id=773&catid=2

The details of activities are available on following weblink:

https://web.mitsgwalior.in/index.php/constitutional-obligations

File Description	Document
• Details of activities that inculcate values; necessary to render students in to responsible citizens	[View Document](#)

7.1.10 The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard.

1. The Code of Conduct is displayed on the website
2. There is a committee to monitor adherence to the Code of Conduct
3. Institution organizes professional ethics programmes for students, teachers, administrators and other staff
4. Annual awareness programmes on Code of Conduct are organized

Response: A. All of the above

File Description	Document
Details of the monitoring committee composition and minutes of the committee meeting, number of programmes organized, reports on the various programs etc., in support of the claims	[View Document](#)
Code of ethics policy document	[View Document](#)

7.1.11 Institution celebrates / organizes national and international commemorative days, events and festivals (within 500 words).

Response:

The Institute celebrates national and international commemorative days, events, and festivals to promote cultural awareness, community engagement, and national pride. These events provide a platform for individuals to come together, celebrate their cultural heritage, and promote understanding and cooperation between different communities.

Various faculty Coordinators are appointed to celebrate the national and international commemorative days annually, during last five years following days are celebrated in the Institute: Global Iodine Deficiency Day, International Science week Webinar programme, International Tolerance Day, International Child Rights Day, Human Rights Day, National Energy Conservation Day, National Cleanliness Day, National Youth Day, Anti Leprosy Day, World Cancer Day, World Environment Day ,World Telecommunication Day, Commemorative Day Red Cross Day, Human Rights Day, Health Day, International Science Week, Tolerance Day.

Institute, also promote to celebrate various festivals and cultural events like Ganpati utsav, Garva, Dandiya, etc.

Independence Day- It is celebrated every year on 15th August to commemorate the day when a country

gained independence from its former colonizers. Hoisting of the national flag, symbolizing the country's independence and sovereignty. The ceremony is often accompanied by patriotic songs and speeches.

Republic Day It is celebrated every year in the Institute on January 26th to commemorate the adoption of the Indian Constitution.

Founders Day of Institute It is celebrated every year to 14th November. Founder's Day is a celebrated to reflect on its history and achievements. Founder's Day can be observed It is celebrated by Member BOG, faculty, staff and students, and involve activities such as speeches, special events, or commemorative ceremonies.

Bhagwan Ganesh Utsav organized every year before Diwali in September with celebration and Poojan of Bhagwan Ganesh. Chanting Sloka and worship of Lord Ganesha in morning and evening hrs perform daily.

Gandhi Jayanti Every year on October 2nd, we celebrate Gandhi Jayanti and take a pledge to better understand the philosophy of our great leader Mahatma Gandhi.

International Week for Science is celebrated annually during the third week of November.

International Tolerance Day is celebrated annually on November 16th, and dedicated to promoting the values of tolerance and respect for diversity.

National Youth Day is celebrated on 12th January every year to pay tribute and honor the teachings of Swami Vivekananda on his birthday. Several seminar and events are organized for the students and faculties.

International Human Rights Day is celebrated every year on December 10th to commemorate the adoption of the Universal Declaration of Human Rights (UDHR) by the United Nations General Assembly in 1948.

International Yoga Day is celebrated every year on June 21st. The institute plans the yoga event and yoga expert gives a talk about how yoga represents the integration of spirit, mind, and body, as well as the simultaneous cultivation of self-discipline and freedom.

Voters Day is celebrated on January 25th to educate students and young people, about the privilege and responsibility that come with being a law-abiding citizen.

The details of activities are available on following weblink:

https://web.mitsgwalior.in/life-at-mits/student-activities/societies-clubs

https://web.mitsgwalior.in/life-at-mits/student-activities/commemorative-days

- Calendar of National/International commemorative days/events

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR
(A Govt. aided UGC Autonomous NAAC Accredited Institute Affiliated to RGPV, Bhopal)

In accordance with the expectations of UGC/AICTE/NAAC & other quality assurance bodies, celebration of following National / International commemorative days / events is planned as follows:

Sr. No.	Event Name	Date/Day	Faculty Coordinator
Group 1			Central Committee
01	Republic Day	26th January	
02	Independence Day	15th August	
Group 2			Prof. Punit K. Johri
01	National Youth Day	12th January	Dr. Ashish Agrawal
02	National Cleanliness Day	30th January	
03	International Women's Day	08th March	
04	International Day for Elderly People	1st October	
Group 3			Dr. Parul Saxena
01	Anti-leprosy Day	30th January	Dr. Vikram
02	Immunization Day	16th March	
03	World Health Day	7th April	
04	National Nutrition Week	1st to 7th September	
Group 4			Dr. Amit Aherwar
01	Prevention of Blindness Week	1st to 7th April	Dr. Monica Chauhan
02	National Fortnight on Eye Donation	23rd Aug. - 8th Sept.	Bhadoriya
03	Global Iodine Deficiency Disorder (IDD) Day	21st October	
04	International Day of Disability Person	3rd December	
Group 5			Prof. Deepak Rastogi
01	World Forestry Day	21st March	Dr. Rahul Dubey
02	World Day for Water	22nd March	
03	World Red Cross Day	8th May	
04	World Environment Day	5th June	
Group 6			Dr. Shourabh Bhattacharya
01	Hindi Divas	14th September	Dr. Suneeta Kumari
02	Mahatma Gandhi's Birthday	2nd October	
03	International week of science	10th November	
04	International Day for Tolerance and Peace	16th November	
Group 7			Dr. Karuna Markam
01	Technology Day	11th May	Dr. Chayan Gupta
02	World Telecommunications Day	17th May	
03	Teachers Day	5th September	
04	National Energy Conservation Day	14th December	
Group 8			Prof. Aneesh P.Jacob
01	World Book Day	23rd April	Ms Anjula Mehto
02	International Literacy Day	8th September	
03	Child Rights Day	20th November	
04	Human Rights Day	10th December	

File Description	Document
Geotagged photographs of some of the events	**View Document**
Annual report of the celebrations and commemorative events for the last five years	**View Document**

7.2 Best Practices

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

Response:

BEST PRACTICE -1

1. **Title: Establishment of a Modular Object-oriented Dynamic Learning Environment (MOODLE) for digital teaching-learning.**

2. **Objectives of the practice:** The idea was to establish an effective **learning management systems** (LMS) which supports digital learning, provides a student-centric teaching learning environment by permitting 'any-time, any-where' format of learning. The major goals were:

   — To address the challenge of providing trustworthy and accurate content to the digital savvy new generation of students
   — To provide a digital interactive learning platform providing support for multiple academic activities
   — To facilitate all learners to learn as per their learning abilities and capacities of assimilation
   — To enable learners to learn at their own pace
   — To assist the faculty members in consolidating their courses at one digital space
   — To make available all academic data, conduction of all activities related to teaching-learning-evaluation

With the above objectives, **The MITS-MOODLE** was **launched on 15th August 2017** for providing an e-learning environment for interactive teaching-learning-evaluation

3. The Context:

— As students were getting more and more familiar with e-content, sometimes they referred to non-standard and non-authentic material

— The institute decided to take an initiative for digitization and easy access of all academic learning material for the benefit all stakeholders

— It was noticed that students were not able to take notes in the classes and therefore a lot of their valuable time was wasted in searching relevant content on the internet.

— Need for a user friendly institutional learning management platform was felt for hassle free conduction of courses and for dissemination of learning material.

4. The Practice:

— Numerous sessions were conducted for creating awareness about effectiveness of MOODLE in learning/blended teaching/flipped classes etc.

— MOODLE coordinators were nominated to motivate their colleagues/peers for integrating MOODLE into their teaching.

— However, in spite of this, many faculty members were still not making sufficient efforts.

— In the present learner centric education, the students need flexibility of learning in their own time, at their own place. But without full faculty participation this objective was not being met completely.

— **The Moodle Working Index (MWI)** was then launched to make faculty members more organized and better prepared for usage of new teaching aids and tools.(Sample Enclosed)

— At the beginning of the semester the course mentors start their respective course pages, enter the course name(s) being taught, add the syllabus, Course Outcomes (COs) and other learning material such as notes, question banks etc.

— Then the faculty members add the students for completing the academic interaction circle so that the course mentor gets connected with all students and vice versa through the MOODLE.

— Ten activities related to each course were identified for monitoring and computation of MWI. The activities are

- o To create the course page on MOODLE
- o To create course wise student groups & mark attendance
- o To enter Course Outcomes (COs) for all courses
- o To enter syllabus for all courses
- o To enter detailed lecture plan
- o To prepare and upload course wise Question Banks
- o To prepare & upload course files (consisting of PPT, Lecture Notes, tutorial questions, Study material, names of Reference Books etc)
- o To prepare and conduct on-line Quiz
- o To prepare & upload assignments/open ended questions
- o To collect on-line feedback for course outcomes for indirect assessment & course content for curriculum development exercise, before the Board of Studies meeting

— **The MWI is computed department wise by taking a weighted average of the performance in following 3 categories**

- o **Poor** (number of faculty using three or less out of the above listed ten features)

- o **Good** (number of faculty using more than three but less than eight out of the ten features) and
- o **Excellent** (number of faculty using more than five out of the ten features).

— **For computing MWI, the three categories, Poor, Good & Excellent were assigned weights of zero, five and ten respectively.**

— 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= {(A x zero) + (B x 5) + (Cx10)}/Z.

- The MWI for each department is computed and circulated to the faculty/departments/HoDs/MOODLE coordinators three times in a semester.
- **The results are displayed and discussed in the meeting of the HoDs and also in the IQAC as shown in enclosures.**
- **The MWI is computed out of ten and is designed to reflect the comprehensive MOODLE usage for a department.**

5. Evidence of Success:

- **The circulation of the department wise MWI score thrice a semester was a huge success.**
- The MWI created a healthy competition between departments and previously non-active course mentors too realized that their non-performance was bringing down the MWI of their department.
- Once the initial hesitation was overcome, the faculty started enjoying this experience of e-teaching-learning.
- The students as well as faculty members welcomed this new digital learning platform in the institute for easy access, dissemination, delivery and evaluation.
- **The MWI was 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 as shown in the Figure below.
- **This practice produced results which turned out to be very helpful for all faculty/students/staff in maintaining the standards of teaching-learning-assessment, conduction of e-labs, sharing of lecture/lab session links during the challenging lockdown period.**

- **Thanks to MWI; MOODLE became an integral part of teaching at MITS by February 2020, as a result when COVID-19 pandemic struck, the institute was already well prepared for 'Digital Teaching-Learning-Evaluation'**
- **MOODLE proved to be backbone of Teaching-Learning during the COVID times.**
- **Thanks to MOODLE, the transition from off-line to on-line classes was very smooth for MITS.**
- **MOODLE was instrumental in the successful implementation of the "Digital Teaching-Learning Action Plan" of the institute, which was later formulated in July 2020.**
- **There are total 12178 active student users on MITS-MOODLE and 376 are faculty & staff members.**

Improvement in Digital Teaching Using MWI
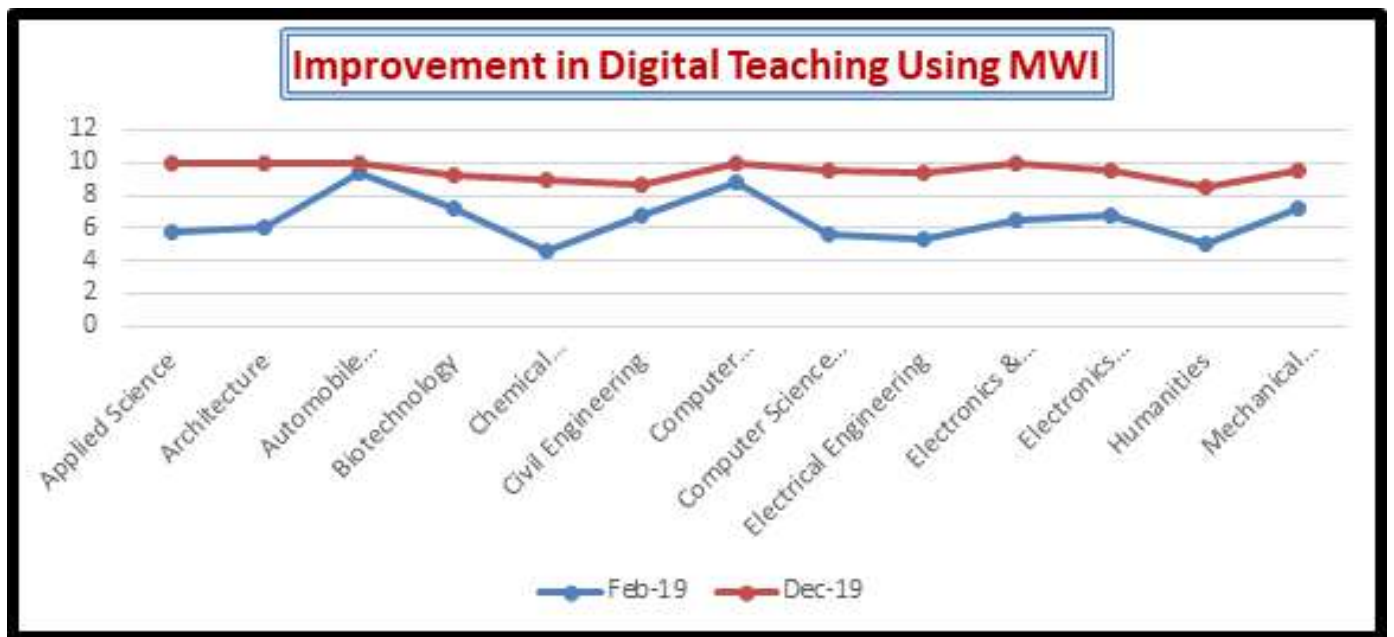
Total Count of Activities and Resources

	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Total Students Role	3445	5322	6945	8425	10232	12178
Total Teacher Role	97	115	218	290	304	376
Total Quiz	340	930	3725	8224	11230	12729
Total Assignment	57	120	2650	4520	6321	7744
Total Attendance	89	145	1135	2136	3424	3624
Total Feedback	59	175	1356	2215	3545	4752
Total Page uploaded	12	27	232	436	511	536
Total Files uploaded	65	845	5942	7652	11326	12345
Total Folders uploaded	18	26	1354	1954	2112	2641
Total Forams	32	103	213	312	402	494
Total Course Category	4	5	7	7	7	7
Total Course Department-Category	9	11	11	15	17	17
Total Courses	102	106	198	315	412	435

Year Wise MOODLE Uses Comparison Chart
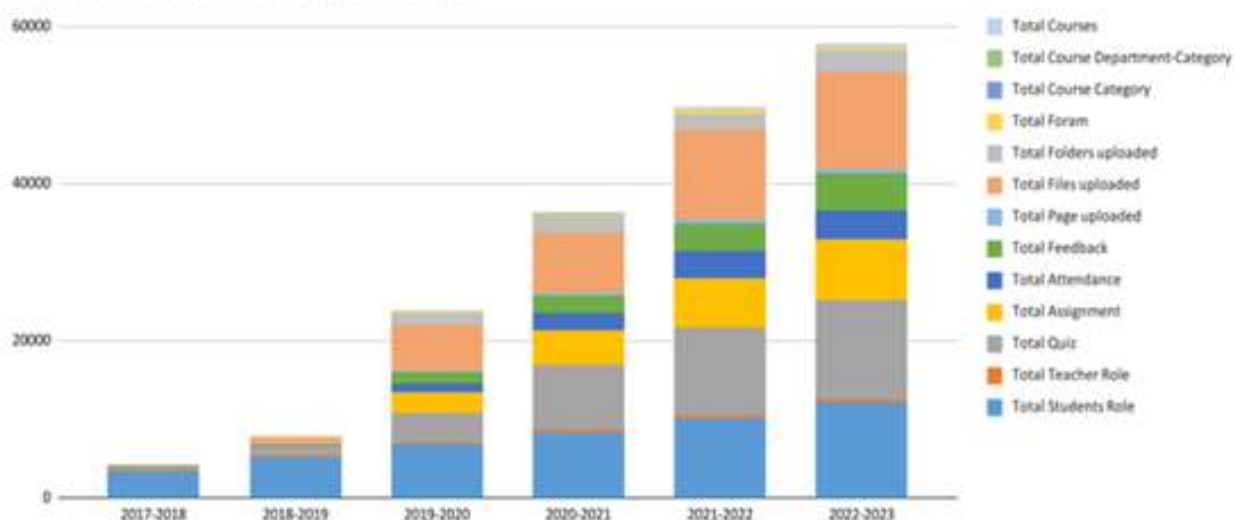
6. Problems Encountered and Resources Required

— There were no problems encountered as the institute had prepared a proper action plan for making digital learning popular among the faculty members.

— The monitoring mechanism through MWI required hard work and regular efforts by the MOODLE administrator and team.

— But these efforts paid off as there was a smooth transition from traditional face to face teaching to digital teaching for the institute faculty, students and staff who were all already well conversant with the MOODLE; so much so that now there is no need of computing MWI. MOODLE is now integral to teaching-learning-evaluation at MITS.

Table: The phenomenal growth of the MITS-MOODLE Initiative

Initiative/Activity	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022

MOODLE launched on 15th August 2017	??	---	---	---	---
Faculty and staff training	??	---	??	??	??
Workshop GIAN MITS (Sustainability in the Built Environment)	??	---	---	---	---
General Enterprising Tendency Test	??	---	---	---	---
Online Notice Board	---	??	??	??	??
General office Attendance System	---	---	??	??	??
On-line quiz conduction	??	??	??	??	??
OBE Training	??	??	??	---	---
Direct/indirect assessment of course outcomes (COs)	??	??	??	??	??
Direct/indirect attainment of programme outcomes (POs)	??	??	??	??	??
Course-end CO Feedback and its analysis	??	??	??	??	??
On-line assessment of assignments	??	??	??	??	??
Uploading lecture notes / Assignments/ Tutorial Sheets / Question Banks	??	??	??	??	??
Dissemination of any other academic information	??	??	??	??	??
Examination Question Paper Feedback	---	??	??	??	??
Examination Question paper Solutions	---	??	??	??	??
A separate new Moodle launched for 2020 admitted students	---	--	??	??	??

Best Practice: Computation of MOODLE WORKING INDEX(MWI)	---	??	??	MWI converged to 10 for all departments meaning that so the practice of Using MOODLE for T-L-E is institutionalized		
Covid Notice and vaccine status	---	---	??	??	??	
Initiative/Activity	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	
Online Central Library	---	---	??	??	??	
Mid-semester examination conduction	---	---	??	??	??	
End-semester examination conduction (MCQ based)	---	---	??	??	??	
Finishing School Program	---	---	??	??	??	
Administrative Staff Feedback	---	---	??	??	??	
In-house Interactive Virtual Workshop	---	---	---	??	---	
Students Induction programme	---	---	---	??	??	
Faculty Induction programme	---	---	---	---	??	

Present Status of Total Count of Courses Department-Wise

Moodle Course Department-Category	Count of courses
Applied Science	19
Architecture	22
Automobile Engineering	8
Biotechnology	5
Chemical Engineering	14
Civil Engineering	42
Computer Applications	5
Computer Science and Engineering	61
Electrical Engineering	43
Electronics & Telecommunication	7
Electronics Engneering	28
Humanities	8
Mechanical Engineering	45
Information Technology	15
Mathematics and Computing	4
Technical Staff	37
MBA	8
Doctoral	1
Professional Trainings	15
MITS Clubs	26
College Notice Board	4
Examination	11
MOOCS	7
	435

Present Status of Moodle Count of Course Department-Category wise
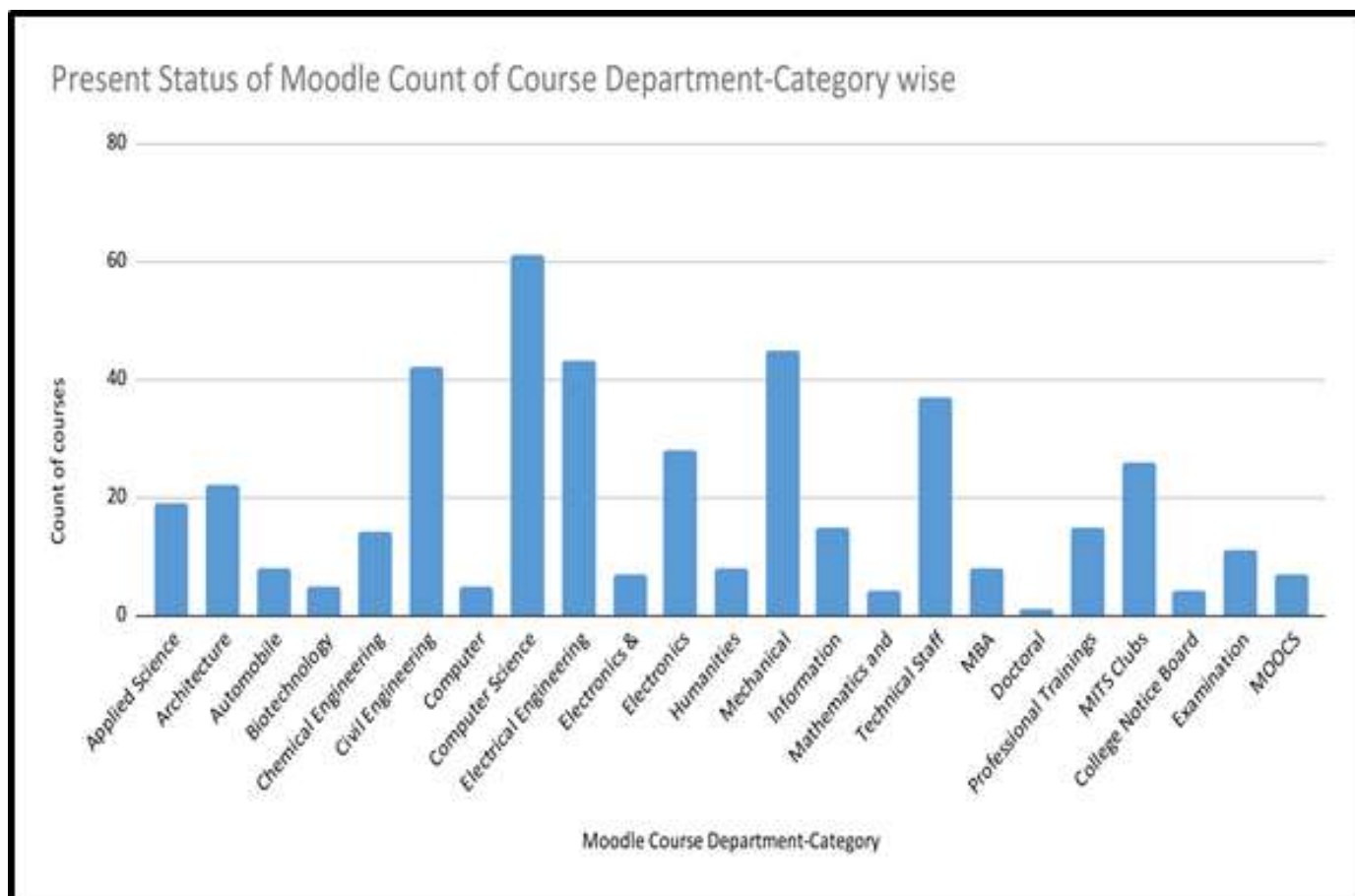
Gradual Improvement in MOODLE Usage due to monitoring MWI

The Objective of the Practice: MOODLE Working Index (MWI) was computed to motivate the faculty members for using MOODLE.

Ten basic activities were identified for computing the MWI as follows

1. *Starting the Course page by Faculty (Course code & name)*
2. *Adding students & marking attendance*
3. *Availability of the Course Outcomes (COs) on faculty page*
4. *Availability of the Syllabus*
5. *Availability of the Lecture Plan*
6. *Question Bank*
7. *Course files (PPT, Lecture Notes ,Study material, Reference books , Unit wise Quiz and Assignment) Unit -1 , Unit- 2,….. Unit -N*
8. *Conduction of Quiz*
9. *Giving & checking Assignments*
10. *Taking Feedback*

For MWI computation:

- Faculty members completing 10 to 6 activities are grouped under "Excellent
- Faculty members completing 5 to 1 activities are grouped under "Good"
- Faculty members who are not working on MOODLE are grouped under "Poor"

Civil Engineering
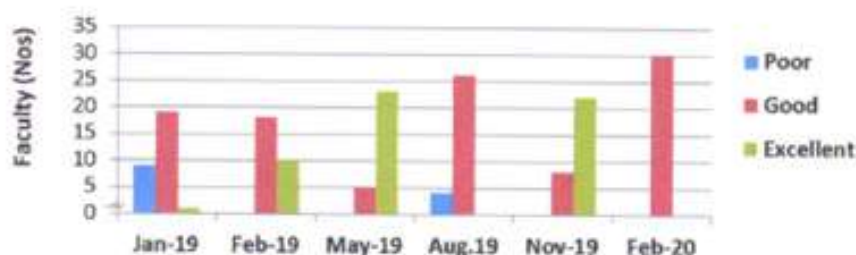
Civil Engineering

	Poor	Good	Excellent
Jan-19 (Semester Beginning)	9	19	1
Feb-19	0	18	10
May-19 (Semester End)	0	5	23
Aug.19 (Semester Beginning)	4	26	0
Nov-19	0	8	22
Feb-20 (Semester End)	0	30	0

(Dr. M. Pandit)
Dean Academics.
10/2/2021.

Dr. R.K. Pandit
(Director)
10.2.23
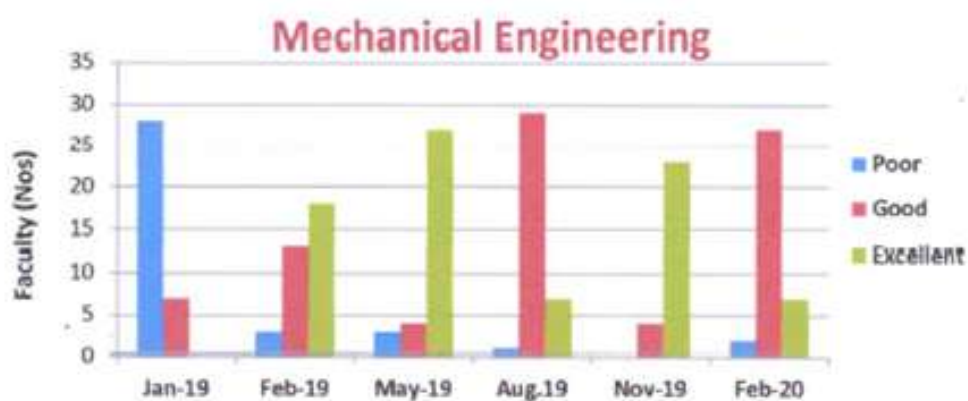
Mechanical Engineering

	Poor	Good	Excellent
Jan-19 (Semester Beginning)	28	7	0
Feb-19	3	13	18
May-19(Semester End)	3	4	27
Aug.19 (Semester Beginning)	1	29	7
Nov-19	0	4	23
Feb-20(Semester End)	2	27	7
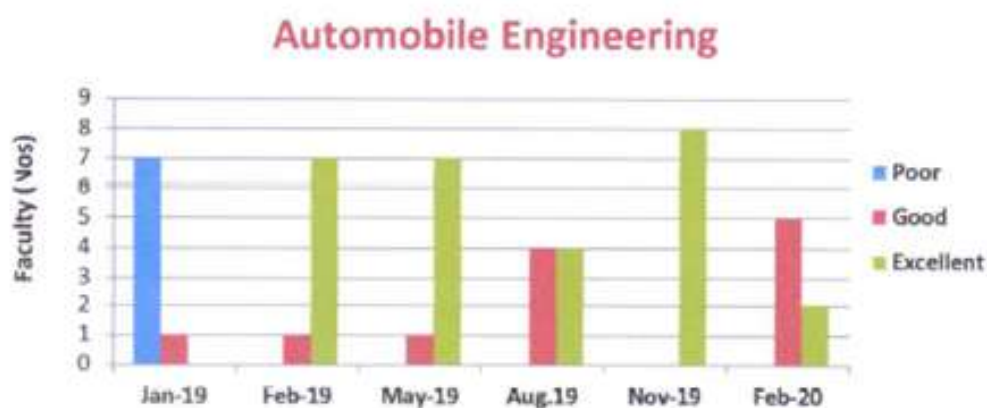
Automobile Engineering

	Poor	Good	Excellent
Jan-19 (Semester Beginning)	7	1	0
Feb-19	0	1	7
May-19(Semester End)	0	1	7
Aug.19 (Semester Beginning)	0	4	4
Nov-19	0	0	8
Feb-20(Semester End)	0	5	2

Electrical Engineering
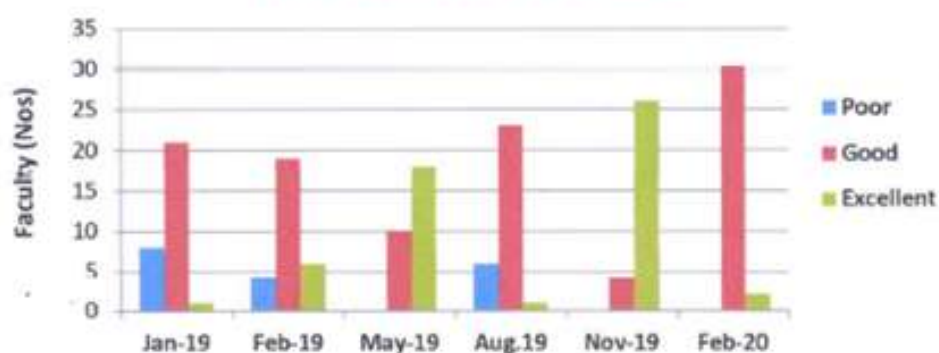
Electrical Engineering

	Poor	Good	Excellent
Jan-19 (Semester Beginning)	8	21	1
Feb-19	4	19	6
May-19(Semester End)	0	10	18
Aug.19 (Semester Beginning)	6	23	1
Nov-19	0	4	26
Feb-20(Semester End)	0	30	2

Electronics Engineering
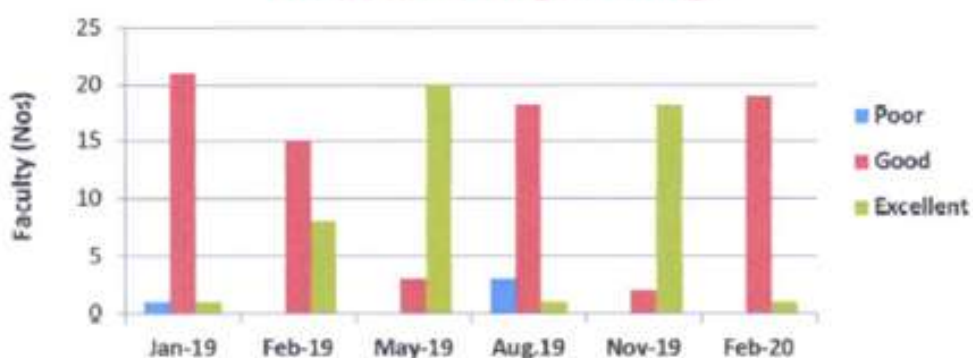
Electronics Engineering

	Poor	Good	Excellent
Jan-19 (Semester Beginning)	1	21	1
Feb 19	0	15	8
May-19(Semester End)	0	3	20
Aug.19 (Semester Beginning)	3	18	1
Nov-19	0	2	18
Feb-20(Semester End)	0	19	1

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

MOODLE WORKING INDEX   January   last update   31/01/2019

Department Name	0	1	2	3	4	5	6	7	8	9	10	Grand Total	Poor	Good	Excellent	weigh ted Avg.	Std. Dev from Avg	
Applied Science	3	1			1	1	2	4	1			13				3.85	0.56	Assigned Weights
Architecture		1	1	1	2	2	1	1				9				3.33	0.04	Poor = 0
Automobile Engineering	3		2	2			1					8				0.83	-2.66	Good = 5
Biotechnology	2			2	1		2	1				8				2.50	-0.79	Excellent = 10
Chemical Engineering	5		1			1	5	1				13				2.69	-0.60	
Civil Engineering	6		1	2	2		4	13	1			29		18		3.62	0.33	
Computer Applications	1						2				1	4		2		5.00	1.71	
Computer Science and Engineering & IT	5		1	1	12	13	6	3				41		34		4.15	0.88	
Electrical Engineering	4		2	2	6	4	6	5		1		30		21		3.83	0.54	
Electronics & Telecommunication					1		4	2				7		7		5.00	1.71	
Electronics Engineering	1				2	4	9	6			1	23		21		5.00	1.71	
Humanities	4		1		1	1		1				8		3		1.68	-1.41	
Mechanical Engineering	8	1	8	11	3	3	1					35	28	7		1.00	-2.29	
Grand Total	40		17	21	31	29	41	39				226	80	140		3.26		

Department Wise MOODLE WORKING CHART

Standard Deviation from Avg
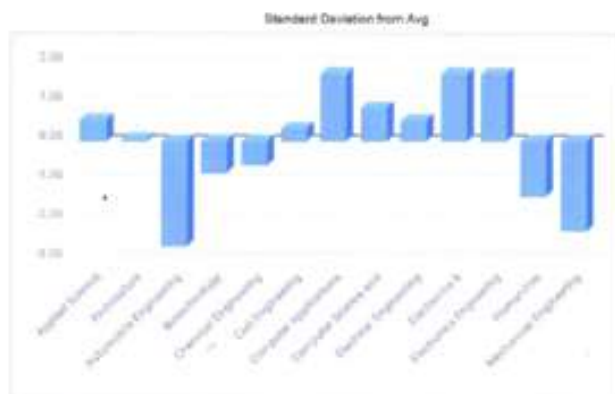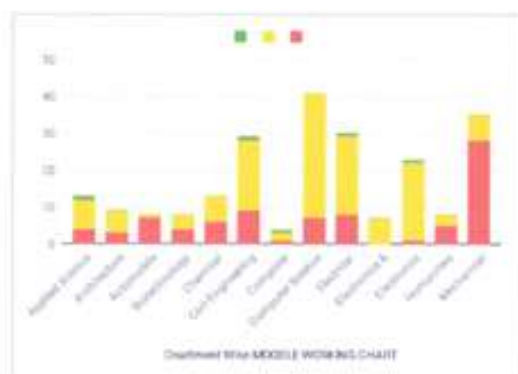
10/2/2021.

DIRECTOR

Samples of important activities conducted through MOODLE
(Detailed reports available on MOODLE webpage)

.

BEST PRACTICE-2

1. **Title: Integration of on-line courses in the curriculum: Model developed Using SWAYAM/NPTEL Platform**
2. **Objectives of the practice**

- To provide students with opportunities to acquire self-learning skill which is one of the most important qualities needed for a successful career, particularly in the present disruptive technological scenario
- To inculcate life-long learning skills among students so that they can update themselves throughout their career path
- To provision credit-transfer from online MOOCs
- To allow students to learn in their own time, at their own place and at their own pace
- To allow learning through mentors from premier institutes of the country/world
- To integrate choice and flexibility
- The objective was also to develop confidence in the students, encourage interactive group learning, generate team spirit, improve communication and presentation skills and at the same time equip them with latest knowledge available in the discipline.

3. The Context

- Since the last few years, there is a complete paradigm shift in education, from the traditional teacher centric system to learner centric one.
- The ownership of education is with students now and the role of teacher has become that of a facilitator.
- Mentorship and interaction with students are now more important than the actual content delivery.
- The focus is on what is '*learnt*' rather than on what is '*taught*'.
- In this environment, it was vital that a more active role be assigned to the students to make them independent and active learners.
- The affiliating technical university of the institute had yet to come out with a policy for credit transfer through MOOCs.
- Therefore, MITS being autonomous, developed its own curricular model and guidelines for conducting the on-line courses.
- to accommodate self-learning through MOOCs for 5-elective courses, initially for the UG students, and later students of PG and Ph.D. course work were also provided with on-line courses.
- NPTEL platform was selected for this initiative due to its popularity, availability of large number of courses, ease of credit transfers to students' transcripts
- The NPTEL provision of a proctored end-term exam in locations all over India was also found to be attractive and credible as compared to some other platforms.
- Soon, the MITS-MOOCs will also join the pool of elective courses.

4. The Practice

- In September 2017, the Academic Council of the institute, approved in principal the proposal for introducing courses from on-line platforms with credit transfer provision.
- **Local Chapter of NPTEL was started in October 2017 in association with IIT BOMBAY for promoting e-learning through on-line Web and Video courses.**
- **Five elective courses, from VI semester onwards were provisioned in the curriculum from the NPTEL platform, for the students of 2017-2021 batch onwards.**
- **As a preparatory, a unique model was developed for the 'self-study component' of the curriculum.The idea was to induct our students into the on-line learning courses at the earliest.**
- Registration in 01 online course from the NPTEL platform was made mandatory for II & III year students.

- The idea was to prepare our students for MOOCs in advance so that by the time the modalities of the credit transfer (from MOOCs) policy are decided and implemented, our students are ready to take the best advantage of these courses for acquiring credits from on-line courses of their choice.

- For the effective conduction of these courses the institute appointed SWAYAM coordinators from each department and to monitor at institute level, the single point of contact (SPOC)of the NPTEL Chapter was appointed as SWAYAM manager.
- After discussion with students and faculty, the above SWAYAM team identified and finalized suitable courses, from the list available at NPTEL portal for the January-June 2018 session.

- The SWAYAM team motivated and registered students and faculty for the selected NPTEL courses; then institute faculty mentors were also appointed as course instructors for providing support.
- **A total of 2019 students and 60 faculty members (SMEs) were registered for 25 courses in 11 departments, during January-June 2018 session.**
- Each section was divided into 10-12 study groups for the session. Every week, one group was assigned the task to give a presentation on 'what was delivered during the week in their online course'.
- Assignments were also dealt with in this same manner. The course instructors also registered for courses and helped the students whenever they were stuck somewhere.
- This way, the MITS students were trained to become self-learners.
- When they reached VI semester they were ready to learn on their own, by registering in one of the online courses, based on their choice, from the courses approved by the Board of Studies.
- **A separate slot was created in the examination scheme from VI semester onwards, for the evaluation of MOOCs as shown below:**

B.Tech. VI Semester (Mathematics & Computing)

S. No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted									Total Marks	Contact Hours per week			Total Credits	Mode of Teaching (Offline/ Online)	Mode of Exam.
				Theory Slot				Practical Slot			MOOCs			L	T	P			
				End Sem.		Mid Sem. Exam.	Quiz/ Assignment	End Sem	Lab Work & Sessional	Skill Based Mini Project	Assignment	Exam							
				End Term Evaluation	*Proficiency in subject /course														
1.	250601	DC		50	10	20	20	-	-	-			100	3	-	-	4	Blended (2/1)	PP
2.	250602	DC		50	10	20	20	60	20	20			200	3	-	2	4	Blended (2/1)	PP
3.	250603	DE		50	10	20	20						100	3	1	-	4	Blended (2/1)	PP
4.	250604	DE									25	75	100	3	-	-	3	Online	MCQ
5.	250605	OC		50	10	20	20	-	-	-			100	3	-	-	3	Offline(3/0)	MCQ
6.	250606	DLC	Minor Project-II	50	10	20	20						100	-	-	4	2	Online (2/0)	MCQ
7.	200xxx	CLC	Novel Engaging Course	-	-	-	-	60	20	20			100	-	-	2	1	Offline	A+O
	Total			250	50	100	100	120	40	40	25	75	800	15	1	8	21		
	Summer Internship-III (On Job Training) for Four weeks duration: Evaluation in VII Semester																		
8.	Additional Course for Honours or minor Specialization			50	10	20	20	-					100	2		GRADE		Online	MCQ

5. Evidence of Success

- The initiative proved immensely successful. Most of the students developed an instant interest in this model of learning. They were also excited that they were being taught by renowned professors of IITs & NITs. They enjoyed the free learning experience and reversal of role, presenting the course to the class on their turn while the teacher (SME) was sitting and listening. The class was fun and students learned in a light and relaxed atmosphere.
- Though there was no compulsion, many students also opted and registered for the paid on-line examination conducted by NPTEL as they wanted to know their position at the all-India level.
- Detailed session-wise reports are available on the MITS web-page (along with links to the NPTEL web page) and the summary of 5-year performance is enclosed below.
- Due to the enthusiasm, efforts and good performance of the students and faculty in this initiative, the MITS NPTEL Local Chapter ranks among the top 100 local Chapters of the country. In January-June 2018 the Chapter got 87Th rank, in July-December 2018 session 25th rank, in January-June 2019 46th, in July-December 2019 31st, in January-December 2020 13th rank, January-December 2021 the chapter got 5th rank and then finally the performance peaked with 2nd rank in active chapters of the country in January-June 2022 session and 20123 credits have been transferred from NPTEL-MOOCs, till June 2022.

Summary of performance of MITS-NPTEL Local Chapter For the period 2017-2022

A Summary of NPTEL Local Chapter Since Establishment

When it comes to the overall development of students, Madhav Institute of Technology & Science leaves no stone unturned. The Institute has started NPTEL local Chapter on 30th Oct 2017 in association with IIT BOMBAY to provide e-learning through on line Web and Video courses in Engineering, Sciences, and Technology among students.

Points	2017-2018		2018-2019		2019-2020		2020-2021		2021-2022	
Enrolment/Registration Details	July-Dec 2017	Jan-June 2018	July-Dec 2018	Jan-June 2019	July-Dec 2019	Jan-June 2020	July-Dec 2020	Jan-June 2021	July-Dec 2021	Jan-June 2022
Enrolment	Establishment of NPTEL Local Chapter on 30th October 2017	2019	2021	3380	6679	4975	7049	11080	7203	9763
Exam Registration		138	484	436	954	1294	1495	3000	1847	4272
Appeared in Exam		130	452	366	770	---	1439	2136	1745	4167
Achievements						**Achievements**				
Toppers		Not Applicable	Not Applicable	26	24	Due to Covid-19 Modified Pass Certificate (MPC) has been issued to students	60	138	89	275
Elite + Gold		03	10	25	14		22	61	13	128
Elite + Silver		Not Applicable	80	52	135		232	566	209	617
Elite		80	107	91	235		561	940	596	1486
Successfully Qualified		36	215	149	160		381	374	504	1082
Total Students Qualified		119	412	317	544		1196	1941	1322	3313
Credit Transfer										
Credits Earned Through MOOCS	2017 Admitted	Not Applicable					1470	1228	2664	12025
	2018 Admitted	Not Applicable					222	132	2382	
National Rank										
Among 5000+ Local Chapters across Country	---	87th	25th	46th	31st	13th		5th		2nd
Web Link of Rank View		View	View	View	View	View		View		View
National Rank in Special Category										
LC with Maximum number of NPTEL Star	Not applicable							2nd Click Here		1st Click Here
Best Certified Count Improvement	Not applicable							3rd Click Here		---

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A GOVT. AIDED UGC AUTONOMOUS & NAAC ACCREDITED INSTITUTE AFFILIATED TO RGPV, BHOPAL)

MITS-NPTEL LOCAL CHAPTER SECURED 2ND RANK IN JANUARY -APRIL 2022 SESSION AMONG THE 100 ACTIVE LOCAL CHAPTERS OF NPTEL.

"CONGRATULATIONS TO ALL THE FACULTY, SWAYAM COORDINATORS AND STUDENTS OF MITS"

TOP 100 SWAYAM-NPTEL LOCAL CHAPTERS (JAN 2022)
TOP 100 LOCAL CHAPTERS WILL BE CONSIDERED AS ACTIVE LOCAL CHAPTERS

Criteria for ratings:

RATING POINTS, R =

(0.1*NUMBER OF LEARNERS PRESENT) (VALUE CAPPED TO 10)

+ {1* SUCCESSFULLY COMPLETED} (VALUE CAPPED TO 100)
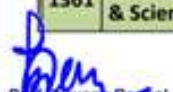
+ {2*ELITE}+{5*SILVER}+{8*GOLD}+{10*TOPPERS}

BASED ON THE RATING POINTS CALCULATED USING THE ABOVE FORMULA:

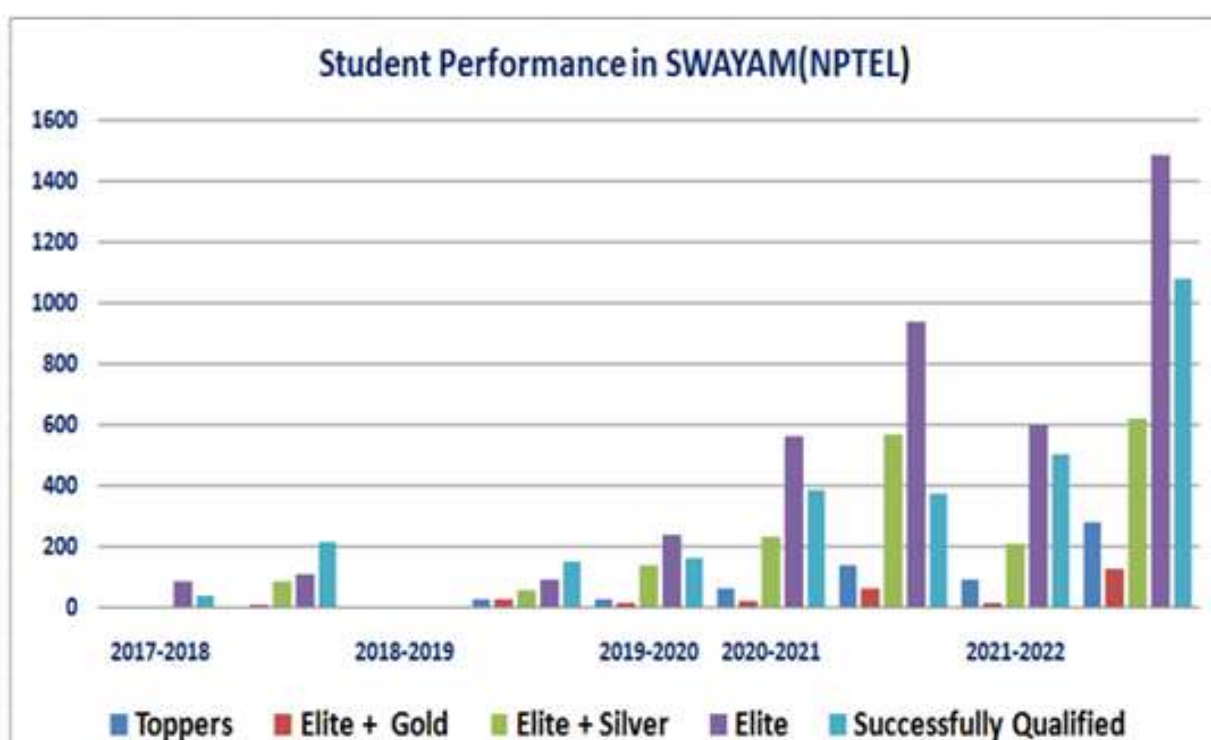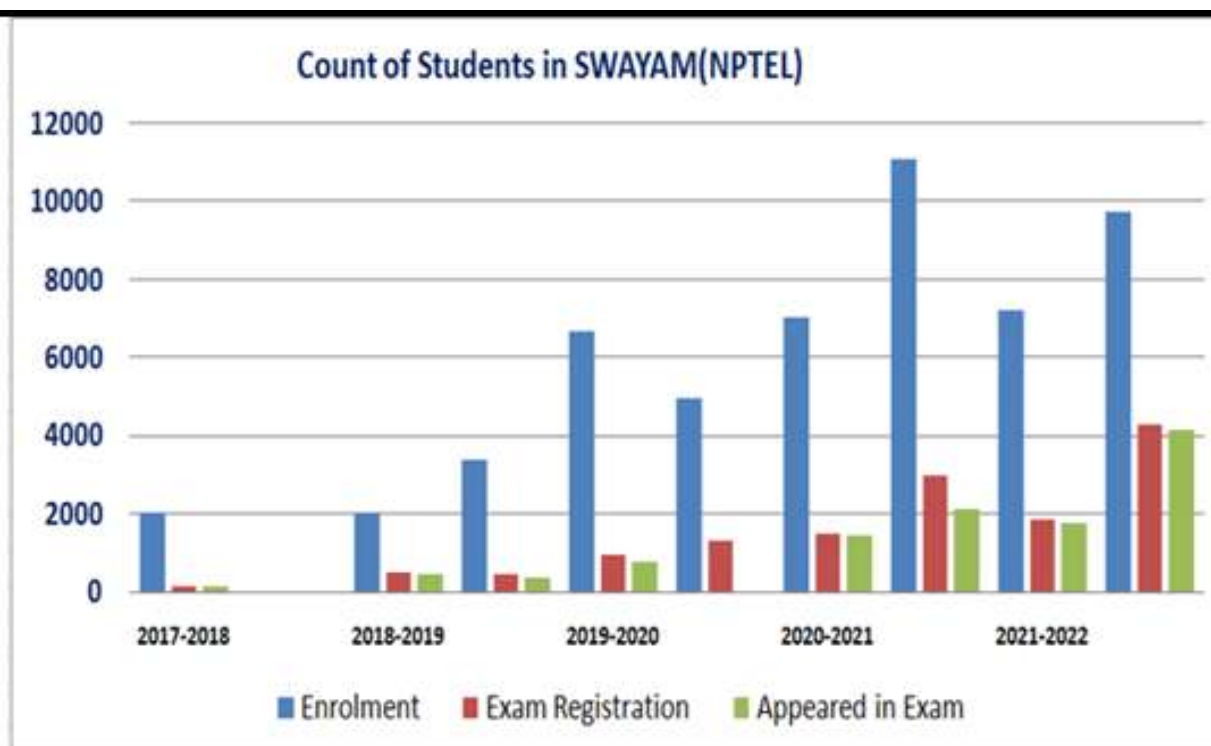THE TOP 10 LOCAL CHAPTERS (WITH MAXIMUM RATING POINTS) WILL BE AWARDED 'AAA' RATING

THE NEXT 40 LOCAL CHAPTERS (WITH MAXIMUM RATING POINTS) WILL BE AWARDED 'AA' RATING

THE NEXT 50 LOCAL CHAPTERS (WITH MAXIMUM RATING POINTS) WILL BE AWARDED 'A' RATING

Lc Id	College Name	City	State	Present	Elite	Silver	Gold	Successfully Completed	Toppers	Rating
4103	Netaji Subhas University Of Technology	Delhi	New Delhi	4160	1538	1269	654	494	458	AAA
1361	Madhav Institute Of Technology & Science	Gwalior	Madhya Pradesh	4227	1506	636	133	1095	288	AAA

Prof. Naveen Bansal
SPOC, Local Chapter

Evidence of Growth & Success of MITS-NPTEL Local Chapter

Count of Students in SWAYAM(NPTEL)

Legend: Enrolment ■ Exam Registration ■ Appeared in Exam

Student Performance in SWAYAM(NPTEL)

Legend: Toppers ■ Elite + Gold ■ Elite + Silver ■ Elite ■ Successfully Qualified

6. Problems Encountered and Resources Required

- Finalizing the list of courses to be run also required a lot of effort as the expertise available at the institute was to be mapped with the available courses on the portal first and then with diverse student interests.
- Another problem was that the students and faculty were tuned to the traditional model of teaching-learning where students are passive listeners most of the time. Therefore, students were reluctant at

first to study from the NPTEL lectures on their own and then deliver/present it in class.

- Later, however they were quite happy with the 'learn at your own place, at your own time, at your own pace' model of NPTEL. Faculty instructors also realized the importance of the interactive model as they too got to learn many things from the students during the class.
- Motivating the students to register for the final on-line test was very challenging.
- Additional efforts were required for developing an alternate mechanism for students who either failed in the proctored examination or could not register due to some constraints.

File Description	Document
Best practices in the Institutional web site	[View Document](#)
Any other relevant information	[View Document](#)

7.3 Institutional Distinctiveness

7.3.1 Portray the performance of the Institution in one area distinctive to its priority and thrust within 1000 words

Response:

- Conduction of 'Novel Engaging Courses'(NEC) for the holistic education using activity based learning is a unique and distinctive feature of the curriculum at MITS, Gwalior.
- An important step towards imparting 'Holistic, Multidisciplinary and Value Based Education, with Flexibility' was taken when the 'Academic development Cell' prepared an action plan March 2021.
- The idea was also presented in the meeting of all Professors, HoDs, Deans, Examination Controllers on 12th July 2021.
- In order to promote holistic education & informal knowledge, cross-disciplinary and interdisciplinary thinking and knowledge of many arts, it was proposed to introduce the provision of NEC as a part of regular curriculum for the UG students admitted in 2020-21 onwards.
- It was proposed that the course should be of 30-hours duration in a semester, mandatory for III to VI semester students and will have 01 credit per semester, making a total of 04 Credits.
- The above proposals for conduction of NEC were approved by the Academic Council in its meeting on 28th June 2021 and a mandatory credit provision for these courses was made.
- The Academic Council agreed that the NEC initiative will result in smooth integration of all branches of creative human endeavor in the curricula. It was decided that courses based on activities such as NSS, NCC, Languages, Literature, Music, Dance, Arts, Theatre, Culinary Arts, Public Speaking, Vedic Mathematics, Economics, Sports, Meditation, Yoga, Ayurveda, etc. would be credited under NEC as a part of curricula.
- The AC approved the conduction of these courses through in-house mentoring or need based external mentoring from other institutions.
- To facilitate, Holistic and Multidisciplinary Education, Knowledge of Many Arts" and "Liberal Arts", integration of all branches of Creative Human Endeavour, etc. the institute developed and

offered 38 course modules out of which 33 were opted by 1138 students of the 2020-2021 admitted batch; the courses commenced from 1st September 2021.

- The 33 courses offered in July-December 2021 session included buckets such as *Performing arts, music, dance, physical health, health & hygiene, technology, programming skills, language & literature, etc.*
- Some modules were designed in two/four phases. Except NCC and NSS, all other modules have an upper limit of 50 students for registration.
- Sessions included online class, seminar, activity, quiz, assignment, etc. depending upon the course. Video link of sessions were shared by course mentors in Google drive.
- In the meeting of the IQAC on 8th October 2021, the status of implementation and action taken for offering Novel Engaging Courses (NEC) was reviewed vide Agenda Item No. 37.
- The IQAC regularly reviews the conduction mechanism of NEC, (i) the registration process, (ii) the feedback received from the students for each of the NECs and the (ii) evaluation mechanism.
- The NECs are monitored on a day to day basis by the Dean, Student Welfare.
- A Case Study is presented below for (i) July-December 2021(ii) January-June 2022 and (iii) July-December 2021

Growth of number of courses as reported in IQAC Meeting on 28.9.2022

Session	July-December 2021	January-June 2021	July-Dec 2022
Number of courses with registration	33	44	72
Number of courses offered	38	87	104

Table:1
The registration details of NEC conducted in July–December 2021

Name of Course/Code	No. of Registered Students
3D Printing (2000001)	50
Amateur Radio Communication (2000002)	14
Animation (2000009)	50
Artistry (2000044)	17
Career Guidance & Preparedness (2000053)	23
Coding Skills (2000060)	51
Data Analysis Skills (2000004)	50
Design Skills Using Simulation Software (2000003)	50
Digital Learning (2000010)	50
Elements of Photographic Skills (2000012)	51
Emerging Technologies in Computer Science (2000064)	50
English Literary Skills (2000048)	33
Environment Protection (2000013)	51
Food and Nutrition (2000052)	25
Games & Sports (2000032)	50
Hindi Language Skills (2000049)	6
Holistic Health (2000042)	9
Mentoring Skills (2000028)	24
National Cadet Corps (2000020)	28
National Service Scheme (2000016)	59
Organic Farming (2000024)	22
Performing Arts – Dance (2000030)	9
Performing Arts - Music (2000031)	29
Personality Development (2000056)	50
Physical Fitness (2000036)	50
Preliminary Journalism Skills (2000050)	14
Public Speaking (2000058)	50
Pythons of Programming (2000065)	50
Robotics (2000007)	50
Sculpture Making (2000046)	11
Short Story Writing (2000051)	10
Software Development (2000066)	52
Vehicular Skill Development (2000008)	40
Total No. of Registered Students	**1178**

Course feedback received from the students for NECs

Student feedback

Student feedback is taken at the end of teaching on 17th Dec. 2021. Students were asked to rate following questions on a 5-point scale:

- Q.1 Course Mentor clearly defines the goals at the beginning of the Novel Engaging Course
- Q.2 The course sequence was well planned
- Q.3 Behavior of course mentor is ethical and shows no gender bias
- Q.4 The course exposed to you about new knowledge and practices
- Q.5 The quality of lectures/PPT available through MOODLE, YouTube and other online platforms was good
- Q.6 The level of the Novel Engaging course is
- Q.7 Rate the Communication skills of the faculty
- Q.8 This course help me to grow professionally
- Q.9 I would recommend this Course to other students in future
- Q.10 Overall rating of the course

Table:2
The feedback responses (on a 5 point scale) from students for NEC conducted in July–December 2021

S. No.	Name of the Course	Feedback Questions Score on 5 Point Scale										Ave Index
		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	
1	3D Printing (2000001)	4.5	4	4.5	4	4	4.2	4.3	4	4.2	4.1	4.18
2	Amateur Radio Communication (2000002)	4.7	4.6	5	4.6	4.2	3.8	4.8	4.5	4.7	4.6	4.55
3	Animation (2000009)	3.8	3.6	4.5	3.7	3.9	3.4	4	3.5	3.6	3.6	3.76
4	Artistry (2000044)	4.6	4.1	5	4.7	4.6	4.1	4.6	4.6	4.1	4.4	4.48
5	Career Guidance & Preparedness (2000053)	4	4.5	4.5	4.5	4	4	3.5	4.5	4.5	4	4.2
6	Data Analysis Skills (2000004)	4.5	4.4	4.6	4.5	4.4	4.2	4.4	4.3	4.3	4.4	4.4
7	Digital Learning (2000010)	4.5	4.5	4.7	4.5	4.4	4.2	4.6	4.2	4.4	4.5	4.45
8	Elements of Photographic Skills (2000012)	4.4	4.3	4.6	4.5	4.1	4	4.3	4.3	4.3	4.3	4.31
9	Emerging Technologies in Computer Science (2000064)	4.4	4.4	4.7	4.3	4.2	4	4.3	4.2	4.2	4.2	4.29
10	English Literary Skills (2000048)	4.8	4.8	5	4.8	4.8	4.4	4.9	4.8	4.9	4.7	4.79
11	Environment Protection(2000013)	4.7	4.6	4.7	4.6	4.4	4.2	4.5	4.9	4.5	4.5	4.56
12	Food and Nutrition (2000052)	4.8	4.6	5	4.8	4.8	4.8	4.8	4.6	4.8	4.5	4.75
13	Games & Sports (2000032)	4.7	4.4	4.8	4.4	4.3	4.2	4.6	4.5	4.6	4.4	4.49
14	Hindi Language Skills (2000049)	5	5	5	5	5	5	5	5	5	5	5
15	Holistic Health (2000042)	4.9	4.7	4.8	4.8	4.5	4.1	4.5	4.6	4.6	4.6	4.61
16	Mentoring Skills (2000028)	4.7	4.6	4.8	4.8	4.8	4.4	4.7	4.6	4.6	4.6	4.66
17	National Cadet Corps (2000020)	4.8	4.5	4.8	4.7	4	4.3	4.7	4.7	4.8	4.8	4.61
18	National Service Scheme (2000016)	4.5	4.3	4.7	4.4	4.3	4.1	4.4	4.3	4.4	4.3	4.37
19	Performing Arts Dance 2000030)	5	5	5	5	5	4	5	5	5	5	4.9
20	Performing Arts - Music (2000031)	4.2	4	4.7	4.3	4	4	4.4	4	4.1	4.1	4.18
21	Personality Development (2000056)	4.3	3.9	4.8	4.1	3.8	3.9	4.6	4	3.9	4	4.13
22	Preliminary Journalism Skills (2000050)	5	4.8	5	4.8	4.8	4.5	4.9	4.7	4.7	4.7	4.79
23	Public Speaking (2000058)	4.7	4.3	4.8	4.7	4.5	4.3	4.6	4.6	4.7	4.7	4.59
24	Pythons of Programming (2000065)	4.4	4	4.6	4.2	4	3.9	4.4	4	4.3	4.1	4.19
25	Robotics (2000007)	4.3	4.2	4.6	4.2	4.6	3.7	4.4	4	4	4	4.2
26	Software Development (2000066)	4.4	4.4	4.7	4.2	4.2	3.9	4.5	4	4.2	4.4	4.29
27	Vehicular Skill Development (2000008)	4.1	3.9	4.9	4.1	3.7	3.9	4.3	4	4	4.1	4.1

- In meeting of IQAC on 30th December 2021, the report on conduction of the Novel and Engaging Courses (NEC) was presented by the Dean Student Welfare and the following Suggestions/Experiences, shared by NEC Mentors, were discussed.

  Suggestions / Experiences shared by NEC Mentors after Pioneering Efforts in NEC

  - ✓ Students are more interested in offline mode classes. (Due to COVID classes were online during july-Dec 2021 session)
  - ✓ Difficulty in conducting online performance sessions (wherever applicable), due to constraint of internet facilities at student's end (performing requires continuous and consistent connectivity).
  - ✓ Inaccessibility of students to active learning due to lack of trained faculty in some cases. External mentoring is required.
  - ✓ Students need motivation for appearing in quiz, assignments and seminars.
  - ✓ As this is a cross branch course, scheduling of sessions is sometimes difficult. Students complain that on weekends they give quiz and assignments and extra classes are there. On weekdays in evening remedial classes are there. It led to lesser participation of the students. Needs scheduling of class in time table – once in a week.
  - ✓ There should be a group of faculty mentors to guide the students, instead of a single faculty coordinator in a course.

- As per the suggestions of students, it was decided to assign two hours (one credit) slot in the weekly Time-Table.

NEC III Sem Feedback (July to December, 2021)
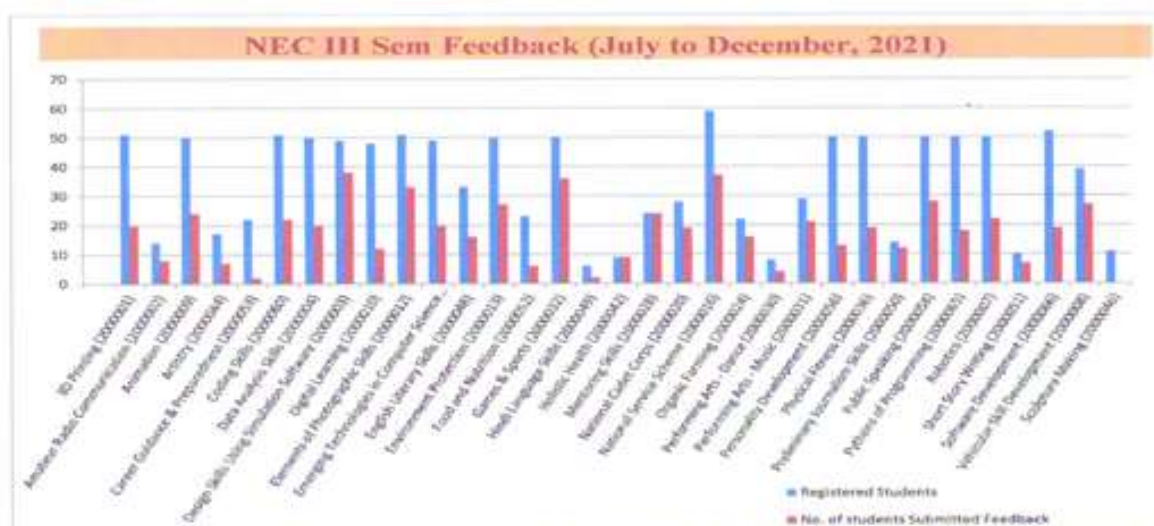
Out of 33 courses offered in July-Dec 2021 session for the first time in the NEC category 15 courses have received feedback response less than 50%.

Submitted for information

The registration details of NEC conducted in January-June 2022

A website/ web portal for 'Novel Engaging Course Registration' for IV Semester students (Jan-June 2022) is developed by the **Software Development Club** under the guidance of **Shri Atul Chauhan, Programmer.**

✓ The Website is hosted in mitsweb.in.

✓ An email is sent with credentials to students for registration on 13th January 2022 at 11:pm.

✓ After that, a mock registration was conducted on 14th Jan from 9 AM to 3 PM and then an email reminder was sent for the registration.

✓ Live registration started on 14th Jan at 5 PM. The re-registration was conducted from 18th Jan to 19th Jan till 4 PM

✓ Total registrations done 1246 and Pending registrations 09

✓ **Project front end: PHP, javascript, HTML5, Project Back end: MySQL**

Web portal features: System ensured that all the students are able to login smoothly. "Forget password" option was also available on this system

The registration was done under the following conditions.

✓ Course which was offered in the UG III semester, should not be selected again.

✓ Courses of more than 1 credit (i.e. any course of 2 or more credits) can only be selected by those students who had opted for Part-I of that course in the III semester.

✓ Only one entry was allowed per student.

✓ Registration in each course was on a First Come First Serve basis (FCFS).

✓ There were limited seats in each course.

Development team: Anurag Dubey, Amit Singh Rajawat and team

Registration Page

Table:3
REGISTRATION DETAILS (Jan-June 2022)

S.No.	Course Name	Mentor Name	Mentor Department	Filled Seats
1	3D Printing	Gavendra Norkey	Mechanical	20
2	Animation	Amit Kumar Manjhvar	CSE	50
3	Artistry* - II	Pooja Sahoo	Electronics	10
4	Basic and Advanced Excel	Abhilash Shukla	Civil	50
5	Basic Programming of Python using Google Colab	Hemant Choubey	Electronics	47
6	Basics of Campus Recruitment Training	Trilok Pratap Singh	MBA	46
7	Basics of MATLAB Programming	Sandeep Sharma	Electronics	20
8	Basics of Technical Analysis in Stocks	Ankit Kumar	Architecture	50
9	Cloud Computing: Techniques & Tools	Mir Shahnawaz Ahmad	CSE	50
10	Coding Skills** - II	Rajni Ranjan Singh	CSE	40
11	Creative thinking and problem solving	Harbhajan Ahirwar	Mechanical	26
12	Data Analysis Skills	D K Jain	Maths & Comp.	22
13	Design Skills Using Simulation Software	Sharad Agrawal	Mechanical	21
14	Digital Learning* - II	Punit Kumar Johari	IT	14
15	Elements of Photographic Skills	Deep Kishore Parsediya	Electronics	15
16	Emerging Technologies in Computer Science	Mahesh Parmar	CSE	18
17	English Literary Skills	Sanjeev Khanna	Humanities	12
18	Environment Protection* - II	Aditya K. Agarwal	Civil	28
19	Food and Nutrition	Anjula Gaur	Applied Science	28
20	Games & Sports** - II	B.P.S. Bhadoria	Sports	49
21	Graphic Design	Satyam Shukla	Architecture	50
22	Hindi Language Skills	Angad Singh Ojha	Maths & Comp.	17
23	Introduction to Entrepreneurship: Challenges and Opportunities	Varun Sharma	Electronics	22
24	IT Tools	Abhishek Dixit	IT	9

25	Knowing Madhya Pradesh	Anjula Mehto	CSE	50
26	Mentoring Skills** - II	Sapna Kumari	Counselling Cell	18
27	Music - The Melody of Life	Shubhi Kansal	Electronics	11
28	National Cadet Corps** NCC - II	B.P.S. Bhadoria	NCC	20
29	National Service Scheme** NSS - II	Manish K. Sagar	NSS	33
30	Personality Development* - II	Anjali S Patil	Architecture	23
31	Photo Editing Software: Adobe Photoshop	Versha Sinha	Architecture	50
32	Physical Fitness* -II	Rajendra Prasad Kori	Mechanical	22
33	Public Speaking* - II	Manish Dixit & Ankita Sengar	CSE & Arch.	16
34	Python for Image processing applications using Open CV	Pawan Dubey	IT (AIR)	50
35	Renewable Energy Technology: Domestic load requirements	Rahul Sagwal	Electrical	18
36	Research Paper Writing	Dinesh Rano	Electronics	8
37	Robotics	Karuna Markam	Electronics	36
38	Science and Technology Around Us	Rakesh Kumar Dubey	Chemical	8
39	Shutter Up-Flash Me Photography	Shourabh S. Raghuwanshi	Chemical	15
40	Smart World Technology	Kalka Dubey	CSE	13
41	Software Development** - II	Atul Chauhan	Data Resource	28
42	Understanding Financial Markets	Saumil Maheshwari	IT	50
43	Vehicular Skill Development	Vedansh Chaturvedi	Mechanical	25
44	World Heritage Sites: A Brief Overview	Richa Mishra	Architecture	15
			1223	

Table:4
The feedback responses (on a 5 point scale) from students for NEC conducted in Jan-June 2022

Feedback of Novel Engaging Courses
(January-April 2022)

Sr.	Module	Master Name	Registered Students	Feedback Given by	% Responses	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	FFI
1	3D Printing	Gavendra Norkey	20	20	100	4.6	4.6	4.6	4.5	4.3	4.4	4.3	4.3	4.4	4.3	4.43
2	Animation	Amit Kumar Manjhwar	50	33	66	4	4	4.2	4	4.1	4.1	4.2	4.1	4.2	4.1	4.1
3	Artistry* - II	Pooja Sahoo	10	9	90	4.4	4.6	4.9	4.4	4.6	4.2	4.6	4.6	4.4	4.6	4.53
4	Basic and Advanced Excel	Abhilash Shukla	50	39	78	4.5	4.4	4.6	4.5	4.3	4.2	4.6	4.4	4.4	4.4	4.43
5	Basic Programming of Python using Google Colab	Hemant Choubey	47	25	53	4.7	4.5	4.6	4.5	4.6	4.4	4.6	4.6	4.4	4.4	4.53
6	Basics of Campus Recruitment Training	Trilok Pratap Singh	46	29	63	4.4	4.4	4.5	4.4	4.5	4.3	4.5	4.6	4.5	4.4	4.45
7	Basics of MATLAB Programming	Sandeep Sharma	20	17	85	4.7	4.6	4.8	4.7	4.6	4.4	4.6	4.6	4.7	4.7	4.64
8	Basics of Technical Analysis in Stocks	Ankit Kumar	50	25	50	4.4	4.2	4.6	4.3	4.1	4.1	4.4	4.4	4.2	4.4	4.31
9	Cloud Computing: Techniques & Tools	Mir Shahnawaz Ahmad	50	36	72	4.6	4.5	4.8	4.6	4.5	4.5	4.7	4.5	4.6	4.6	4.59
10	Coding Skills** - II	Rajni Ranjan Singh	41	32	78	4.6	4.7	4.7	4.5	4.3	4.4	4.5	4.4	4.6	4.4	4.51
11	Creative thinking and problem solving	Harbhajan Ahirwar	26	13	50	4.8	4.5	4.8	4.6	4.5	4.4	4.5	4.5	4.7	4.6	4.59
12	Data Analysis Skills	D K Jain	22	16	73	4.7	4.4	5	4.2	4.4	4.3	4.8	4.3	4.3	4.3	4.47
13	Design Skills Using Simulation Software	Sharad Agrawal	21	14	67	4.3	4	4.6	4.2	4.3	4.4	4.4	4.4	4.4	4.4	4.34
14	Digital Learning* - II	Punit Kumar Johari	14	10	71	4.5	4.4	4.6	4.4	4.7	4.4	4.5	4.5	4.5	4.4	4.49
15	Elements of Photographic Skills	Deep Kishore Parsediya	15	12	80	4.6	4.7	4.7	4.6	4.6	4.8	4.6	4.7	4.7	4.6	4.66
16	Emerging Technologies in Computer Science	Mahesh Parmar	18	13	72	4.8	4.5	5	4.8	4.7	4.5	4.5	4.7	4.7	4.7	4.69
17	English Literary Skills	Sanjeev Khanna	12	6	50	4.5	4.7	4.7	4.3	4.3	4.5	4.5	4.5	4.7	4.7	4.54
18	Environment Protection* - II	Aditya K. Agarwal	28	20	71	4.3	4.1	4	4.3	4.1	4.2	4.3	4.4	4.4	4.1	4.22
19	Food and Nutrition	Anjula Gaur	28	19	68	4.8	4.6	4.9	4.7	4.6	4.4	4.7	4.6	4.8	4.7	4.68
20	Games & Sports** - II	B.P.S. Bhadoria	49	35	71	4.8	4.9	4.9	4.8	4.7	4.8	4.8	4.8	4.9	4.8	4.82
21	Graphic Design	Satyam Shukla	50	38	76	4.5	4.2	4.4	4.3	4.3	4.2	4.4	4.2	4.1	4.3	4.29
22	Hindi Language Skills	Angad Singh Ojha	17	17	100	4.8	4.5	4.8	5	4.6	4.8	4.8	4.6	4.5	4.5	4.69
23	Introduction to Entrepreneurship: Challenges and Opportunities	Varun Sharma	22	11	50	4.8	4.8	4.9	4.7	4.6	4.6	4.8	4.5	4.7	4.6	4.7
24	IT Tools	Abhishek Dixit	9	6	66	4.8	5	5	4.7	4.7	4.8	4.7	5	4.8	4.5	4.8
25	Knowing Madhya Pradesh	Anjula Mehto	50	20	40	4.5	4.6	4.7	4.7	4.5	4.4	4.6	4.7	4.5	4.6	4.58
26	Mentoring Skills** - II	Sapna Kumari	19	14	74	4.9	4.8	4.9	4.7	4.6	4.8	4.7	4.7	4.9	4.6	4.76
27	Music - The Melody of Life	Shubhi Kansal	12	6	50	4.7	4.7	5	4.5	4.7	4.5	4.7	4.5	4.5	4.7	4.65
28	National Cadet Corps** NCC - II	B.P.S. Bhadoria	20	19	95	4.8	4.7	4.9	4.7	4.6	4.9	4.8	4.9	5	4.9	4.82
29	National Service Scheme** NSS - II	Manish K. Sagar	33	17	52	4.9	4.8	4.9	4.8	4.7	4.9	4.8	4.7	4.8	4.9	4.82
30	Personality Development* - II	Anjali S Patil	23	12	52	4.7	4.8	4.8	4.7	4.6	4.5	4.7	4.5	4.4	4.6	4.63
31	Photo Editing Software: Adobe Photoshop	Versha Sinha	50	28	56	4.8	4.6	4.8	4.7	4.6	4.5	4.5	4.6	4.6	4.4	4.61
32	Physical Fitness* -II	Rajendra Prasad Kori	22	19	86	4.7	4.6	4.7	4.6	4.5	4.3	4.6	4.6	4.4	4.4	4.54
33	Public Speaking* - II	Manish Dixit & Ankita Seni	16	8	50	4.6	4.6	4.9	4.8	4.3	4.5	4.8	4.6	4.6	4.5	4.62

Table:5
REGISTRATION DETAILS (July-December 2022)

LIST OF NOVEL ENGAGING COURSES JULY – DEC. 2022

Sr.	Course Name & Code	Mentor	Mentor Deptt.
1	3D Printing (2000001)	Gavendra Norkey	ME
2	Amateur Radio Communication (2000002)	Vandana Vikas Thakare	EE
3	Design Skills Using Simulation Software (2000003)	Sharad Agrawal	ME
4	Data Analysis Skills (2000004)	D K Jain	MAC.
5	Robotics (2000007)	Karuna Markam	EC
6	Vehicular Skill Development (2000008)	Vedansh Chaturvedi	ME
7	Animation (2000009)	Amit Manjhvar	CSE
8	Digital Learning* - I (2000010)	Punit Kumar Johari	IT
9	Elements of Photographic Skills (2000012)	D.K. Parsediya	EC
10	Environment Protection* - I (2000013)	Aditya K. Agarwal	CE
11	National Service Scheme** (NSS) - I (2000016)	Manish Sagar	NSS
12	National Service Scheme** (NSS) - III (2000018)	Manish Sagar	NSS
13	National Cadet Corps** (NCC) - I (2000020)	B.P.S. Bhadoria	NCC
14	National Cadet Corps** (NCC) – III (2000022)	B.P.S. Bhadoria	NCC
15	Organic Farming (2000028)	Archana Tiwari	CE
16	Games & Sports** - I (2000032)	B.P.S. Bhadoria	Sports
17	Games & Sports** - III (2000034)	B.P.S. Bhadoria	Sports
18	Alternative Therepies** - I (2000038)	Sunita Sharma	BT
19	Holistic Health* - I (2000042)	Vishal Chaudhary	EE
20	Sculpture Making* - I (2000046)	Pranshi Jain	Arch.
21	English Literary Skills (2000048)	Sanjeev Khanna	Humanities
22	Hindi Language Skills (2000049)	A.S. Ojha	MAC
23	Preliminary Journalism Skills (2000050)	Anish P. Jacob	CM
24	Food and Nutrition (2000052)	Anjula Gaur	App. Sc.
25	Career Guidance & Preparedness (2000053)	Praveen Bansal & Swati Gupta	EE & CM.
26	Public Speaking* - I (2000058)	Manish Dixit & Ankita Sengar	CSE & Arch.
27	Coding Skills** - I (2000060)	Rajni Ranjan Singh	CSE
28	Coding Skills** - III (2000062)	Rajni Ranjan Singh	CSE
29	Emerging Technologies in Computer Science (2000064)	Mahesh Parmar	CSE
30	Software Development** - I (2000066)	Atul Chauhan	Data Resource
31	Software Development** - III (2000068)	Atul Chauhan	Data Resource
32	Photo Editing Software: Adobe Photoshop (2000070)	Versha Sinha	Arch.
33	Basics of Technical Analysis in Stocks (2000071)	Ankit Kumar	Arch.
34	Graphic Design (2000072)	Satyam Shukla	Arch.
35	World Heritage Sites: A Brief Overview (2000073)	Richa Mishra	Arch.
36	Basic and Advanced Excel (2000074)	Abhilash Shukla	CE
37	Shilpa Samhita : Philosophy of Indian Ancient Geotechnical Engineering (2000075)	Chayan Gupta	CE
38	Fire Safety and Regulation in Building (2000076)	Hemant Shrivastava	CE
39	Developments in Pavement Construction: Past to Future (2000077)	Jayvant Choudhary	CE
40	SPSS For Data Analysis (2000078)	Prachi Singh	CE
41	Shutter Up-Flash Me Photography (2000080)	Shourabh Raghuwanshi	CM
42	Science and Technology Around Us (2000081)	Rakesh Dubey	CM
43	Cloud Computing: Techniques & Tools (2000083)	Mir Shahnawaz Ahmad	CSE
44	Role of MATLAB in Computations (2000084)	Ranjeet Kumar Singh	CSE
45	Demystifying Online Social networks (2000085)	Arun Kumar	CSE

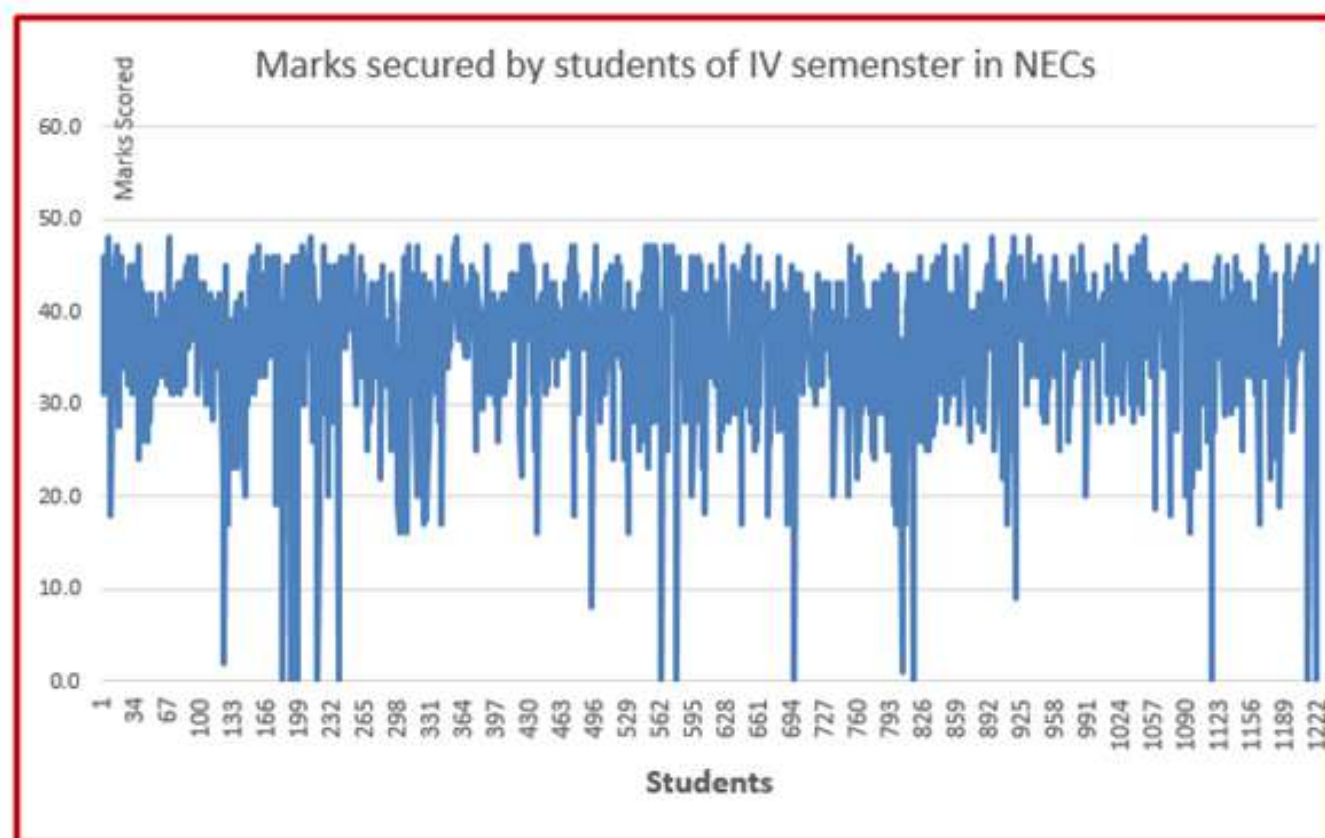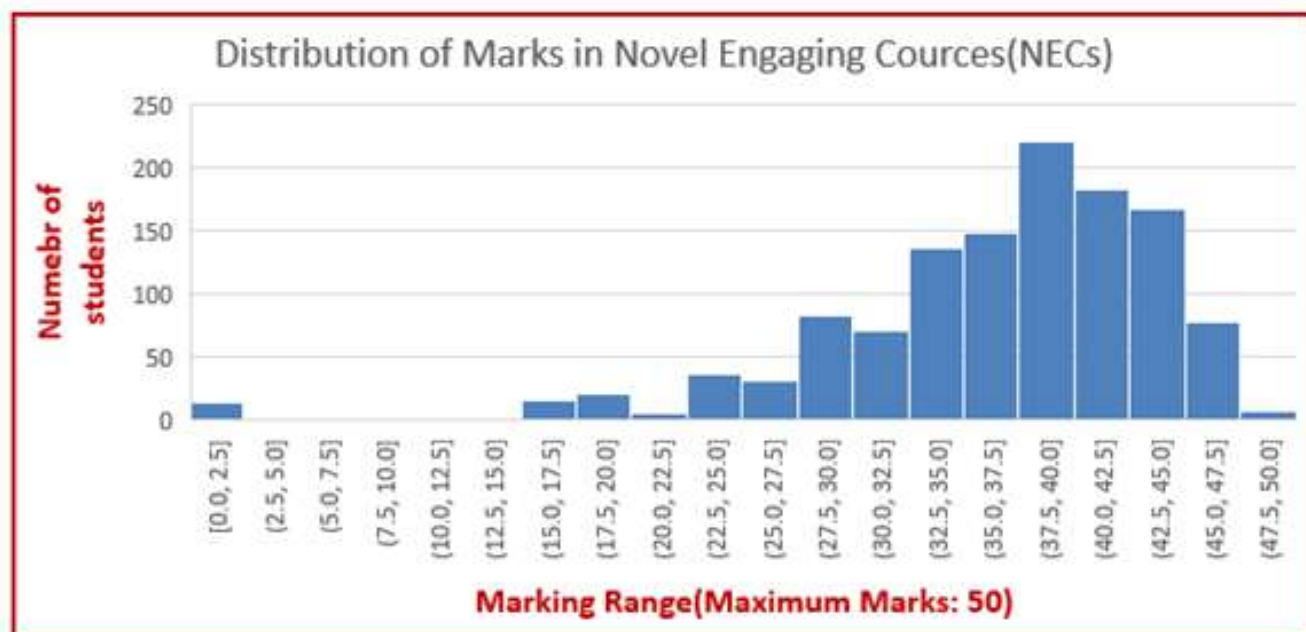| 46	Gender Sensitization (2000088)	Anshu Chaturvedi	CSE
47	IT Tools (2000089)	Abhishek Dixit	IT
48	Understanding Financial Markets (2000090)	Saumil Maheshwari	IT
49	Intellectual Property : Rules, Drafting and Processing (2000091)	Vikram Rajpoot	IT
50	Modern techniques for business correspondence (2000093)	Namrata Agrawal	IT
51	Integrating Engineering and Literacy (2000094)	Tej Singh	IT (AIR)
52	Imbalance Learning (2000095)	Bhagat Singh Raghuwanshi	IT (AIR)
53	Python for Image processing applications using Open CV (2000096)	Pawan Dubey	IT (AIR)
54	MATLAB: Applications in Mathematical Biology (2000098)	Divya Chaturvedi	MAC
55	Basics and Applications of Mathematica (2000099)	Atul Kumar Ray	MAC
56	Technical Report Writing for Engineers (2000100)	Minakshi	MAC
57	Proficiency in Microsoft Excel (2000101)	Nikhil Paliwal	EE
58	Fundamentals of Electronics Devices (2000102)	Manoj Kumar	EE
59	Microsoft Visio: Scratch to Advance (2000103)	Bhavna Rathore	EE
60	Renewable Energy Technology: Domestic load requirements (2000106)	Rahul Sagwal	EE
61	Electrical Wiring, hazards & safety (2000107)	Saurabh Rajput	EE
62	Basics of MATLAB Programming (2000108)	Sandeep Sharma	EC
63	Basic Programming of Python using Google Colab (2000109)	Hemant Choubey	EC
64	LT Spice Tutorial for Circuit Simulation (2000110)	Vikas Mahor	EC
65	Research Paper Writing (2000111)	Dinesh Rano	EC
66	Understanding Logic Gates (2000114)	Rahul Dubey	EC
67	MATLAB Simulink (2000115)	Deepak Batham	EC
68	CFD Foundation Course using ANSYS FLUENT (2000117)	Subash Chand Pal	ME
69	Solar Applications (2000118)	Ravi Kant Ranjan	ME
70	Computational Methods for Engineers using MATLAB (2000119)	Nitin Upadhyay	ME
71	Role of Non-Destructive Testing (NDT) in modern inspection technology (2000120)	Surendra Chourasiya	ME
72	Creative thinking and problem solving (2000121)	Harbhajan Ahirwar	ME
73	Material Characterization Techniques for Engineering Applications (2000122)	Dinesh Rathore	ME
74	System Dynamics: Using Bond Graph Approach (2000123)	Neeraj Mishra	ME
75	Basics of Campus Recruitment Training (2000124)	Trilok Pratap Singh	MBA
76	Corporate Governance (2000125)	Namrata Gupta	MBA
77	Professional Networking & CSR (2000126)	Monica Chauhan Bhadoriya	MBA
78	Craft practices in India (2000127)	Gautam Bhadoriya	CE
79	Design of Heat Exchangers (2000128)	Ashish Agrawal	ME
80	Smart Grid (2000129)	Himmat Singh	EE
81	Study of Historical Monuments of Gwalior (2000130)	Jaimala Jha	CSE
82	An Introduction to Queueing Systems and its Applications (2000131)	J.K. Muthele	MAC
83	Image processing using MATLAB (2000132)	Khushboo Agarwal	CSE
84	Digital Circuit Design (2000133)	Kuldeep Swarnkar	EE
85	Practical Electronics for Inventors (2000134)	Madhav Singh	EC
86	Research Paper Preparation and Publication -Basics (2000135)	Rakesh Narvey	EE
87	Basics of Control Systems for Engineers (2000136)	R. P. Narwaria	EC
88	Computational Thinking for Problem Solving (2000137)	Sanjiv Sharma	IT
89	Introduction to Auto CAD for Engineers (2000138)	Utkarsh Srivastava	ME
90	Smart Home Technologies (2000139)	Vikas Shejwar	IT
91	OrCAD PSpice (2000140)	Yashwant Sawle	EE

Registration Note

(i) Courses marked with * are of two parts (Part –I & II will run in two semesters). One credit for each part.

(ii) Courses marked with ** are of four parts (Part – I, II, III & IV will run in four semesters). One credit for each part.

(iii) Remaining all courses are of one credit each.

(iv) Course 2000151 is for III Semester students only.

(v) Course 2000155 is for V Semester students only.

(vi) All courses are open for both III & V Semester students except 2000151 & 2000155 (subject to the condition that the courses studied earlier during session 2021-22 by 2020 admitted batch cannot be taken again).

Table: 6
The feedback responses (on a 5-point scale) from students for NEC conducted in July-December 2022

NEC STUDENT FEEDBACK (AUGUST-NOVEMBER 2022 SESSION)

Sr.	Name of the Course	Mentor Name	Registered Students	No. of students Submitted Feedback	% response	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Average Score
1	2000001 3D Printing	Dr Gavendra Norkey	50	24	48.00	4	4	4	4	4	4	4	4	4	4	4
2	2000003 Design Skills Using Simulation Software	Prof. Sharad Agrawal	23	14	60.87	4	5	5	5	5	5	5	5	5	5	4.9
3	2000004 Data Analysis Skills	Dr. D.K. Jain	50	16	32.00	5	5	5	5	5	5	5	4	4	5	4.8
4	2000007 Robotics	Dr. Karuna Markam	50	41	82.00	4	4	5	4	4	4	4	4	4	4	4.1
5	2000008 Vehicular Skill Development	Prof. Vedansh Chaturvedi &Ajay Rajput	15	4	26.67	5	5	5	5	5	5	5	5	5	5	5
6	2000009 Animation	Prof. Amit Manjhwar	50	29	58.00	4	4	5	5	4	4	5	4	5	5	4.5
7	2000010 Digital Learning* - I	Dr. Punit Kumar Johari	30	9	30.00	5	5	5	4	5	5	5	5	5	4	4.8
8	2000012 Elements of Photographic Skills	Prof. Deep Kishore Parsediya	50	30	60.00	4	4	5	5	4	4	4	4	4	4	4.2
9	2000013 Environment Protection* - I	Prof. Aditya K Agarwal	50	17	34.00	5	5	5	5	5	5	5	5	5	5	5
10	2000016 National Service Scheme** (NSS) - I	Dr. Manish Sagar	49	16	32.65	4	4	5	5	4	4	4	5	4	4	4.3
11	2000018 National Service Scheme** (NSS) - III	Dr. Manish Sagar	18	5	27.78	5	5	5	5	4	5	5	5	4	5	4.8
12	2000020 National Cadet Corps** (NCC) - I	Dr. BPS Bhadoria	50	34	68.00	4	4	4	4	4	4	4	4	4	4	4
13	2000022 National Cadet Corps** (NCC) - III	Dr. BPS Bhadoria	12	1	8.33	5	5	5	5	5	5	5	5	5	5	5
14	2000028 Organic Farming	Dr. Archana Tiwari	20	7	35.00	5	5	5	5	5	4	5	5	5	5	4.9
15	2000032 Games & Sports** - I	Dr. BPS Bhadoria	50	33	66.00	5	5	5	5	5	5	5	5	5	5	5
16	2000034 Games & Sports** - III	Dr. BPS Bhadoria	40	29	72.50	5	5	5	5	5	5	5	5	5	5	5
17	2000042 Holistic Health* - I	Prof. Vishal Choudhary	11	4	36.36	5	5	5	5	5	5	5	5	5	5	5
18	2000046 Sculpture Making* - I	Dr. Pranshi Jain	9	7	77.78	4	4	5	5	4	4	5	5	5	5	4.6
19	2000048 English Literary Skills	Dr. Sanjeev Khanna	18	5	27.78	5	5	5	5	5	5	5	5	5	5	5
20	2000049 Hindi Literary Skills	Prof. A.S. Ojha	24	14	58.33	5	5	5	5	5	5	5	5	5	5	5
21	2000050 Preliminary Journalism Skills	Prof. Anish P. Jacob	10	1	10.00	5	5	5	5	5	5	5	5	5	5	5
22	2000052 Food and Nutrition	Dr. Anjula Gaur	25	11	44.00	4	4	5	4	4	4	5	4	4	4	4.2
23	2000053 Career Guidance & Preparedness	Dr. Praveen Bansal/Dr. Swati Gupta	50	29	58.00	5	5	5	5	5	4	5	5	5	5	4.9
24	2000058 Public Speaking* - I	Dr. Manish Dixit & Ankita Sengar	50	35	70.00	5	5	5	5	4	5	5	5	5	5	4.9
25	2000060 Coding Skills** - I	Dr. Rajni Ranjan Makwana	50	17	34.00	4	4	4	4	4	4	4	4	4	4	4
26	2000062 Coding Skills** - III	Dr. Rajni Ranjan Makwana/Jigyasa Mishra	25	11	44.00	5	5	5	5	5	5	5	5	5	5	5
27	2000064 Emerging Technologies in Computer Science	Prof. Mahesh Parmar	50	41	82.00	4	4	5	4	4	4	4	4	4	4	4.1
28	2000066 Software Development** - I	Mr. Atul Chouhan	50	19	38.00	4	4	5	4	4	4	4	4	4	4	4.1
29	2000068 Software Development** - III	Mr. Atul Chouhan	18	11	61.11	5	5	5	5	5	5	5	5	5	5	5
30	2000070 Photo Editing Software: Adobe Photoshop	Ms. Versha Sinha	50	45	90.00	5	5	5	5	4	5	5	5	5	5	4.9
31	2000071 Basics of Technical Analysis in Stocks	Mr. Ankit Kumar	50	21	42.00	5	5	5	5	5	5	5	5	5	5	5
32	2000072 Graphic Design	Mr. Satyam Shukla	50	46	92.00	4	4	5	5	4	4	5	5	4	5	4.5
33	2000073 World Heritage Sites: A Brief Overview	Ms. Richa Mishra	46	34	73.91	5	5	5	5	5	5	5	5	5	5	5
34	2000074 Basic and Advanced Excel	Prof. Abhilesh Shukla	50	16	32.00	5	5	5	5	5	4	5	5	5	5	4.9
35	2000076 Fire Safety and Regulation in Building	Prof. Hemant Shrivastava	24	8	33.33	5	5	5	5	4	5	5	5	4	5	4.8
36	2000077 Developments in Pavement Construction: Past	Prof. Jayvant Choudhary	12	8	66.67	5	5	5	5	5	4	5	5	4	5	4.8
37	2000080 Shutter Up-Flash Me Photography	Prof. Shourabh Raghuwanshi	50	20	40.00	4	4	5	4	4	5	5	5	4	4	4.4
38	2000081 Science and Technology Around Us	Prof. Rakesh Dubey	19	11	57.89	4	4	5	5	4	4	5	4	4	4	4.3
39	2000083 Cloud Computing: Techniques & Tools	Prof. Mir Shahnawaz Ahmad	50	45	90.00	5	5	5	5	5	5	5	5	5	5	5

Item 35: Review of evaluation of NEC offered in July-December 2022

Distribution of Marks in Novel Engaging Cources(NECs)

Marks secured by students of IV semenster in NECs

Item 8: To review the evaluation of Novel Engaging Courses offered for the III and V semester students (July-November 2022)

— The IQAC reviewed the evaluation mechanism of NEC for the July-Dec 2022 semester.
— It was found that highest number of V semester students were scoring in the range 40.6 to 43.5 out of 50 and III semester students scoring 36.4 to 39.0 out of 50. The distribution of marks is drawn below.
— The distribution is close to normal distribution, which is acceptable.
— The list of courses for the coming semester, Jan-June 2023 was also presented.
— Distribution of Marks in Novel Engaging Courses (NECs)

Distribution of Marks in Novel Engaging Courses V sem (NECs)

Marks analysis in Novel Engaging Courses V sem (NECs)
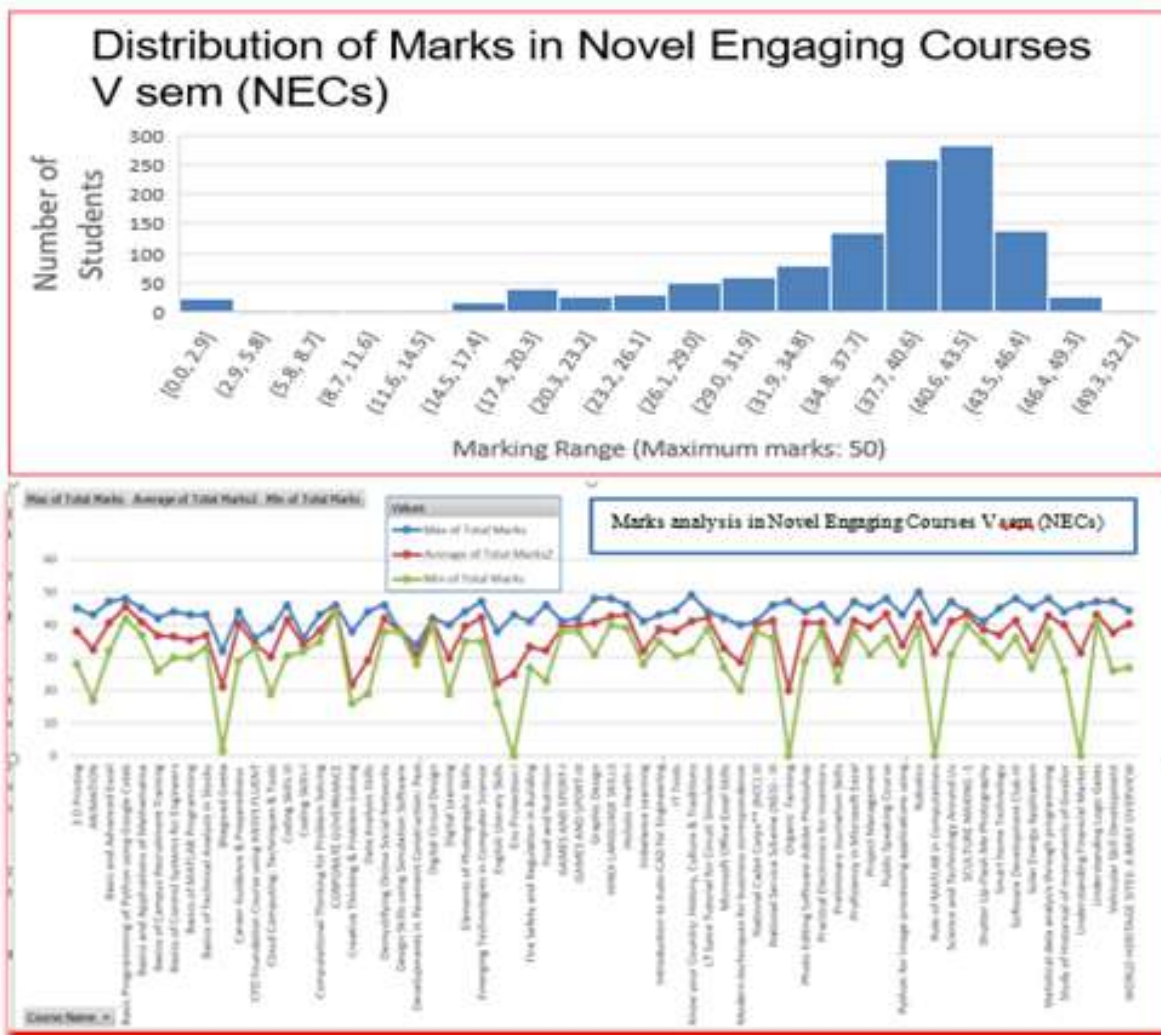
Item. 6 Feedback Report on conduction of the Novel and Engaging Courses (NEC) (Jan-April 2022) & (July-November 2022)

— The NEC are conducted for the holistic development of the students.
— Four (04) credits are assigned to NEC, 01 each in III, IV, V and VI semester.

Session	Number of student Registered	Number of student given Feedback	% of Students
Jan-April 22	1226	836	68%
July-Nov 22	2546	1458	57.27

Conclusion of IQAC Review of NEC Evaluation

- The IQAC reviews the evaluation mechanism of NEC on a routine basis.
- It was found that the highest number of V semester students were scoring in the range 40.6. to 43.5 out of 50 and III semester students scoring 36.4 to 39.0 out of 50. The distribution of marks is drawn below.
- The distribution is close to normal distribution, which is acceptable.

File Description	Document
Any other relevant information	[View Document](#)
Appropriate web in the Institutional website	[View Document](#)

5. CONCLUSION

Additional Information :

- The institute has a 33kV sub-station, 100kWp net-metered roof-top solar power plant, with additional 280kWp plant already sanctioned under the RESCO scheme by the Madhya Pradesh Government. The campus has its own water supply and backup electricity supply, internet facility, bank & ATM. In the last three years, augmentation in physical infrastructure, equipment, library & Digital Teaching-Learning facility is undertaken to fulfil the needs of the increased intake due to the new emerging area U.G. programmes.
- The campus has only 33% built area and rest is green with total jungle area of about 20% with 3095 sq. meter of teak wood plantation. With more than 2100 trees, many varieties of birds, peacocks and parrots are part of the campus eco-system.
- The present solar power plant meets about 12.5% of the total demand and prevents about 1.20 Lac kilograms of CO_2 emission from the global atmosphere per year, which is equivalent to planting about 6000 fully grown trees.
- There are 58 class rooms, 60 labs, seminar halls, conference halls and studios, e-learning resource center, which are well equipped with ICT facilities and LCD Projectors.
- The faculty has received research and development grants from all major central funding agencies. The institute promotes and sponsors faculty members for attending academic events, faculty development programmes, seminars, workshops etc. for updating their technical knowledge and also to adopt the best practices from different academic/research institutes.

- The U.G. programme structure assigns weight of ?42% to core courses, weight of domain specific & open interdisciplinary electives is ?7.5% each and Novel Engaging Courses (NECs) have 2.5% weight. Weight assigned to projects & internships is ?11%, humanities & management has 4%, basic sciences 9%, engineering sciences 9%, mandatory courses have a 6.5% weight.
- Course outcomes are designed by course faculty and disseminated to all students through MOODLE. The COs are mapped with questions of mid/end-semester examination and attainment of COs is calculated by each faculty and gap analysis is done to further meet the target set for each CO. The CO attainment is mapped with POs and PEOs of the department.

Concluding Remarks :

- The institute has a 65-year old legacy; its alumni have attained distinction all over the globe during the past 60 years. A steady growth has been maintained over the years. A commitment to quality has always been the defining principle at MITS. The administration is transparent and decentralized and the policies are well documented.
- During the last five years, a large number of quality initiatives have been taken by the IQAC in-line with the national policies, guidelines of regulatory bodies, UN's sustainable development goals, guidelines of the outcome based education (OBE), global market needs & trends resulting in the present Flexible Curriculum of the institute with integration of NEP-2020 provisions. The quality practices adopted by the institute are dynamic, are revised as per the changing needs and monitored continuously till these are institutionalized.
- The institute, in July 2020, prepared an exhaustive Action Plan for implementing NEP-2020. Out of the 22 targeted parameters for the year 2024-2025, twenty parameters have already been undertaken; either

completed or are being manifested through various endeavors.

- MITS is at present the only institute in the state where examination reforms are effectively implemented and Multiple Mode Logical Pattern Examination (MMLPE) system is in place. The mode of examination is decided by the nature of the subject/course and the learning levels to be assessed.
- The existence of large number of student clubs & chapters, mandatory multidisciplinary electives, in-house internship programmes, award of U.G. degree with Minor Specialization in other disciplines or Honors in parent discipline are some of the unique practices.
- Quality is a journey and the major milestones achieved by the institute during the last five years are development and effective implementation of Flexible Curriculum with integration of the key NEP-2020 parameters and provisions, creating a culture of self-learning through online courses/MOOCs, facilitating credit transfer through MOOCs and establishing a dynamic teaching-learning-evaluation environment through a highly effective & functional MITS-MOODLE. With these initiatives, MITS has emerged as a leader in the field of technical education in the state and region.

6.ANNEXURE

1.Metrics Level Deviations

Metric ID	Sub Questions and Answers before and after DVV Verification
1.1.2	**Percentage of Programmes where syllabus revision was carried out during the last five years.** 1.1.2.1. **Number of all Programmes offered by the institution during the last five years.** Answer before DVV Verification : 27 1.1.2.2. **How many Programmes were revised out of total number of Programmes offered during the last five years** Answer before DVV Verification : 27 Answer after DVV Verification: 27
1.1.3	**Average percentage of courses having focus on employability/ entrepreneurship/ skill development offered by the institution during the last five years** 1.1.3.1. **Number of courses having focus on employability/ entrepreneurship/ skill development year-wise during the last five years..** Answer before DVV Verification: <table><tr><td>2021-22</td><td>2020-21</td><td>2019-20</td><td>2018-19</td><td>2017-18</td></tr><tr><td>723</td><td>677</td><td>585</td><td>581</td><td>580</td></tr></table> Answer After DVV Verification : <table><tr><td>2021-22</td><td>2020-21</td><td>2019-20</td><td>2018-19</td><td>2017-18</td></tr><tr><td>723</td><td>677</td><td>585</td><td>581</td><td>580</td></tr></table>
1.2.1	**Percentage of new courses introduced of the total number of courses across all programs offered during the last five years.** 1.2.1.1. How many new courses are introduced within the last five years Answer before DVV Verification : 492 Answer after DVV Verification: 492 1.2.1.2. **Number of courses offered by the institution across all programmes during the last five years.** Answer before DVV Verification : 1140 Answer after DVV Verification: 1140
1.2.2	**Percentage of Programmes in which Choice Based Credit System (CBCS) / elective course system has been implemented (Data for the latest completed academic year).** 1.2.2.1. **Number of Programmes in which CBCS / Elective course system implemented.** Answer before DVV Verification : 27 Answer after DVV Verification: 27
1.3.2	**Number of value-added courses for imparting transferable and life skills offered during last five years.**

1.3.2.1. How many new value-added courses are added within the last five years

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
114	48	40	28	0

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
110	47	40	28	0

1.3.3	**Average Percentage of students enrolled in the courses under 1.3.2 above.**

1.3.3.1. Number of students enrolled in subject related Certificate or Add-on programs year wise during last five years

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
4091	2090	1875	851	0

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
4091	2090	1875	851	0

1.3.4	**Percentage of students undertaking field projects/ internships / student projects (Data for the latest completed academic year)**

1.3.4.1. Number of students undertaking field projects / internships / student projects

Answer before DVV Verification : 2941

Answer after DVV Verification: 2941

1.4.1	**Structured feedback for design and review of syllabus – semester-wise / year-wise is received from**

1) Students, 2) Teachers, 3) Employers,

 4) Alumni

Answer before DVV Verification : A. All 4 of the above

Answer After DVV Verification: A. All 4 of the above

1.4.2	**The feedback system of the Institution comprises of the following :**

Answer before DVV Verification : A. Feedback collected, analysed and action taken and report made available on website

Answer After DVV Verification: A. Feedback collected, analysed and action taken and report made available on website

2.1.1	**Average Enrolment percentage (Average of last five years)**

2.1.1.1. Number of students admitted year-wise during last five years

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18

2.1.1.2. Number of sanctioned seats year wise during last five years

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
1754	1605	1268	1187	1251

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
1754	1605	1268	1187	1251

2.3.3	**Ratio of students to mentor for academic and other related issues (Data for the latest completed academic year)**

2.3.3.1. Number of mentors ?????????????? ???????
Answer before DVV Verification : 117
Answer after DVV Verification: 117

3.1.2	**The institution provides seed money to its teachers for research (average per year, INR in Lakhs)**

3.1.2.1. The amount of seed money provided by institution to its faculty year-wise during the last five years (INR in lakhs).

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
13.7749	0	18.8367	0	0

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
17.1759	0	18.849	0	0

3.2.1	**Grants received from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)**

3.2.1.1. Total Grants from Government and non-governmental agencies for research projects , endowments, Chairs in the institution during the last five years (INR in Lakhs)

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18

| 41.9 | 54.7647 | 172.07 | 21.75 | 21.65 |

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
41.9	54.7647	172.07	21.75	21.65

3.2.2 | **Percentage of teachers having research projects during the last five years**

3.2.2.1. **Number of teachers having research projects during the last five years**
Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
3	17	23	1	2

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
3	17	23	1	2

3.2.4 | **Average percentage of departments having Research projects funded by government and non-government agencies during the last five years**

3.2.4.1. **Number of departments having Research projects funded by government and non-government agencies during the last five years**
Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
5	6	5	2	1

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
2	4	5	1	1

3.2.4.2. **Number of departments offering academic programes**
Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18

3.3.2 | **Number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR),entrepreneurship, skill development during the last five years.**

3.3.2.1. **Total number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR),entrepreneurship, skill development year-wise during the last five years.**
Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
53	31	24	16	10

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
28	38	17	15	14

3.4.1	**The Institution ensures implementation of its stated Code of Ethics for research through the following:**
	1. Inclusion of research ethics in the research methodology course work
	2. Presence of Ethics committee
	3. Plagiarism check through software
	4. Research Advisory Committee
	Answer before DVV Verification : A. All of the above Answer After DVV Verification: A. All of the above
3.4.3	**Number of research papers per teachers in the Journals notified on UGC website during the last five years** 3.4.3.1. Number of research papers in the Journals notified on UGC website during the last five years Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
210	104	134	148	159

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
164	58	73	54	55

3.4.4	**Number of books and chapters in edited volumes / books published per teacher during the last five years** 3.4.4.1. **Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings year-wise during last five years** Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
80	83	40	29	35

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
65	65	26	13	27

3.5.1

Revenue generated from consultancy and corporate training during the last five years (INR in Lakhs).

   3.5.1.1. Total amount generated from consultancy and corporate training year-wise during the last five years (INR in lakhs).

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
45.69289	17.89802	12.38141	13.1117	15.90163

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
45.69289	17.89802	12.38141	13.1117	15.90163

3.5.2

Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs).

   3.5.2.1. Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs)

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	0.44	56.81	0

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
0	0	56.10723	1.10785	0

3.6.2

Number of awards and recognition received by the Institution, its teachers and students for extension activities from Government / Government recognised bodies during last five years

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

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
36	8	45	2	21

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
31	4	43	3	19

3.6.3

Number of extension and outreach programs conducted by the institution through NSS/NCC, Government and Government recognised bodies during the last five years

   3.6.3.1. Number of extension and outreach programs conducted by the institution through NSS/NCC, Government and Government recognised bodies during the last five years

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
30	13	14	23	26

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
30	13	14	23	26

3.6.4

Average percentage of students participating in extension activities listed at 3.6.3 above during the last five years

   3.6.4.1. Total number of students participating in extension activities listed at 3.6.3 above year-wise during the last five years.

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
4823	1291	3239	4533	5846

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
4823	1291	3239	4533	5846

3.7.1

Number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on –the-job training/ project work

   3.7.1.1. Total number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on –the-job training/ project work

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
653	310	13	21	29

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
653	310	13	21	29

3.7.2	**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)**

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

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
7	10	4	6	5

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
7	10	4	6	5

4.1.3	**Percentage of classrooms and seminar halls with ICT- enabled facilities such as smart class, LMS, etc.** *(Data for the latest completed academic year)*

4.1.3.1. Number of classrooms and seminar halls with ICT facilities
Answer before DVV Verification : 59
Answer after DVV Verification: 59

4.1.4	**Average percentage of expenditure for infrastructure augmentation excluding salary during the last five years (INR in Lakhs)**

4.1.4.1. Expenditure for infrastructure augmentation, excluding salary year-wise during last five years (INR in lakhs)
Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
1014.08	666.64	1014.54	976.85	354.34

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
1014.08	666.64	1014.54	976.85	354.34

4.2.2	**Institution has access to the following:**

1. e-journals

2. e-ShodhSindhu

3. Shodhganga Membership

4. e-books

5. Databases

6. Remote access to e-resources

Answer before DVV Verification : A. Any 4 or more of the above
Answer After DVV Verification: A. Any 4 or more of the above

4.2.3	**Average annual expenditure for purchase of books/ e-books and subscription to journals/e-journals during the last five years (INR in Lakhs)**

4.2.3.1. **Annual expenditure of purchase of books/e-books and subscription to journals/e-journals year wise during last five years (INR in Lakhs)**

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
7.11	24.16	15.66	10.47	0.19

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
7.11	24.16	15.66	10.47	0.19

4.2.4	**Percentage per day usage of library by teachers and students (foot falls and login data for online access) during the latest completed academic year**

4.2.4.1. **Number of teachers and students using library per day over last one year**
Answer before DVV Verification : 846
Answer after DVV Verification: 846

4.3.4	**Institution has the following Facilities for e-content development**

1. **Media centre**
2. **Audio visual centre**
3. **Lecture Capturing System(LCS)**
4. **Mixing equipments and softwares for editing**

Answer before DVV Verification : A. All of the above
Answer After DVV Verification: A. All of the above

5.1.2	**Average percentage of students benefited by scholarships, freeships, etc. provided by the institution and non-government agencies during the last five years**

5.1.2.1. Number of students benefited by scholarships and free ships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years (other than students receiving scholarships under the government schemes for reserved categories)

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
3	3100	5	3	1

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
3	3100	5	3	1

5.2.1

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

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

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
739	568	505	605	522

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
739	568	505	605	522

5.2.3

Average percentage of students qualifying in state/national/ international level examinations during the last five years (eg: IIT-JAM/CLAT/ NET/SLET/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations, etc.)

5.2.3.1. Number of students qualifying in state/ national/ international level examinations (eg: IIT/JAM/ NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ State government examinations, *etc.*)) year-wise during last five years

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
58	131	94	89	28

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
58	131	94	89	28

5.2.3.2. Number of students appearing in state/ national/ international level examinations (eg: IIT/JAM/ NET / SLET/ GATE/ GMAT/CAT,GRE/ TOEFL/ Civil Services/ State government examinations) year-wise during last five years

	Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18

6.2.3	**Implementation of e-governance in areas of operation** 1. **Administration** 2. **Finance and Accounts** 3. **Student Admission and Support** 4. **Examination** Answer before DVV Verification : A. All of the above Answer After DVV Verification: A. All of the above
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: {{TABLE1}} Answer After DVV Verification : {{TABLE2}}
6.3.4	**Average percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP)during the last five years (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course).** 6.3.4.1. **Total number of teachers attending professional development Programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes year wise during last five years** Answer before DVV Verification: {{TABLE3}} Answer After DVV Verification : {{TABLE4}}
6.4.2	**Funds / Grants received from non-government bodies, individuals, philanthropists during the**

TABLE1:

2021-22	2020-21	2019-20	2018-19	2017-18
64	51	82	145	136

TABLE2:

2021-22	2020-21	2019-20	2018-19	2017-18
64	51	82	145	136

TABLE3:

2021-22	2020-21	2019-20	2018-19	2017-18
80	94	111	136	74

TABLE4:

2021-22	2020-21	2019-20	2018-19	2017-18
117	133	182	218	74

last five years (not covered in Criterion III and V) (INR in Lakhs)

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

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
23.60	0	0	0	0

Answer After DVV Verification :

2021-22	2020-21	2019-20	2018-19	2017-18
23.60	0	0	0	0

6.5.3	**Quality assurance initiatives of the institution include:** 1. **Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analysed and used for improvements** 2. **Collaborative quality initiatives with other institution(s)** 3. **Participation in NIRF** 4. **Any other quality audit recognized by state, national or international agencies (ISO Certification)** Answer before DVV Verification : All of the above Answer After DVV Verification: All of the above
7.1.2	**The Institution has facilities for alternate sources of energy and energy conservation measures** 1. **Solar energy** 2. **Biogas plant** 3. **Wheeling to the Grid** 4. **Sensor-based energy conservation** 5. **Use of LED bulbs/ power efficient equipment** Answer before DVV Verification : A. 4 or All of the above Answer After DVV Verification: A. 4 or All of the above
7.1.4	**Water conservation facilities available in the Institution:** 1. **Rain water harvesting** 2. **Borewell /Open well recharge** 3. **Construction of tanks and bunds** 4. **Waste water recycling** 5. **Maintenance of water bodies and distribution system in the campus** Answer before DVV Verification : A. Any 4 or all of the above

	Answer After DVV Verification: A. Any 4 or all of the above
7.1.5	**Green campus initiatives include:** 1. **Restricted entry of automobiles** 2. **Use of Bicycles/ Battery powered vehicles** 3. **Pedestrian Friendly pathways** 4. **Ban on use of Plastic** 5. **landscaping with trees and plants** Answer before DVV Verification : A. Any 4 or All of the above Answer After DVV Verification: A. Any 4 or All of the above
7.1.6	**Quality audits on environment and energy are regularly undertaken by the Institution and any awards received for such green campus initiatives:** 1. **Green audit** 2. **Energy audit** 3. **Environment audit** 4. **Clean and green campus recognitions / awards** 5. **Beyond the campus environmental promotion activities** Answer before DVV Verification : A. Any 4 or all of the above Answer After DVV Verification: A. Any 4 or all of the above
7.1.7	**The Institution has disabled-friendly, barrier free environment** 1. **Built environment with ramps/lifts for easy access to classrooms.** 2. **Divyangjan friendly washrooms** 3. **Signage including tactile path, lights, display boards and signposts** 4. **Assistive technology and facilities for Divyangjan accessible website, screen-reading software, mechanized equipment** 5. **Provision for enquiry and information : Human assistance, reader, scribe, soft copies of reading material, screen reading** Answer before DVV Verification : A. Any 4 or all of the above Answer After DVV Verification: A. Any 4 or all of the above
7.1.10	**The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard.** 1. **The Code of Conduct is displayed on the website** 2. **There is a committee to monitor adherence to the Code of Conduct** 3. **Institution organizes professional ethics programmes for students, teachers, administrators and other staff** 4. **Annual awareness programmes on Code of Conduct are organized** Answer before DVV Verification : A. All of the above Answer After DVV Verification: A. All of the above

2.Extended Profile Deviations

ID	Extended Questions

| 1.1 | **Number of students year-wise during last five years** |

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
4802	4469	4276	4292	4199

Answer After DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
4802	4469	4276	4292	4199

| 1.2 | **Number of outgoing / final year students year-wise during last five years** |

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
1017	949	1022	1001	848

Answer After DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
1017	949	1022	1001	848

| 1.3 | **Number of students appeared in the examination conducted by the Institution, year-wise during the last five years** |

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
4757	4451	4276	4292	4199

Answer After DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
4757	4451	4276	4292	4199

| 1.4 | **Number of revaluation applications year-wise during last five years** |

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
41	0	36	43	39

Answer After DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
41	0	36	43	39

| 2.2 | **Number of seats earmarked for reserved category as per GOI/State Govt rule year-wise during** |

last five years

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
674	622	493	497	526

Answer After DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
674	622	493	497	526

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

Answer before DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
1555.66	1314.75	1882.07	1827.40	1283.31

Answer After DVV Verification:

2021-22	2020-21	2019-20	2018-19	2017-18
1555.66	1314.75	1882.07	1827.40	1283.31