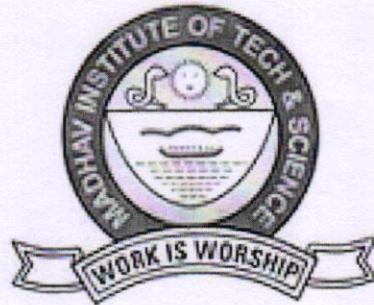# Annual Report
(2018-19)

of

Examination
(For All programs)

Mission to Innovate Technology for Society

Madhav Institute of Technology & Science
Race Course Road, Gole Ka Mandir
Gwalior, Madhya Pradesh 474005

Table of Content

1. Introduction

The institute is gradually progressing towards implementation of Flexible Curriculum/ Choice Based Credit System in all UG programs and various guidelines for exam pattern, evaluation criteria and credit transfer were approved through BoS and Academic Council meetings for Department Elective and Open Category courses. The criteria for the award of B. Tech Honors and Minor Specialization degree was also approved. On the basis of these guidelines it was resolved that up to 34 Credits out of total 170 for Engineering/Technology students & 52 credits out of total 260 credits for B. Architecture students can be earned through SWAYAM /NPTEL / MOOC platform based learning for the award of UG degree in Engineering/Technology & Architecture respectively (without Honours / Minor Specialization).

Moreover, to obtain "**Honours or Minor Specialization**", 20 Credits additionally can be completed through SWAYAM /NPTEL / MOOC platform based learning. In this manner, **students aspiring for minor specialization or Honours during the tenure of B. Tech programme can opt for a total of 54 (34+20) Credits** and the students of the B. Architecture programme **can earn up to 72 (52+20)credits through SWAYAM /NPTEL / MOOC platform based learning.**

 The examination Section updated the Examination Control System (ECS) as per the approved guidelines of the Academic Cell of the Institute for :

a) Preparation of result of departmental/open elective courses.
b) Methodology of **credit transfer through MOOCs / NPTEL** and other approved on-line courses
c) Awarding "**Honours**" to students who complete 20 additional credits from their own parent department/programme
d) Awarding "**Minor Specialization**" to students who complete 20 additional credits from other department/programme
e) Awarding marks for the 01 credit "**Professional Development**" course in VIII semester
f) Awarding module wise marks for In house Summer Internship program-II

2. **Academic Calendar (2018-19)** :

The academic calendar of the institute for all UG and PG program is prepared on 23.04.2018 by the Dean, Academics by consulting with the Director and offered to all stakeholders of the departments one month before the commencement of the semester. Two separate academic calendars for Odd semester (Jul-Dec 18 session) and Even semester (Jan-June 19 session) were prepared by the institute having timelines for following exam related activities:

A. I, II, and III mid sem exams
B. Exam form filling
C. Commencement of exam
D. Declaration of result
E. Commencement of new semester

3. Conduct of Exam Activities

Programme Name	Semester/Year	Last date of the last semester-end/ year- end examination	Date of declaration of results of the semester-end/ year-end examination

B.Tech. in Automobile Engineering (AU)	VIII	01-05-2019	28-05-2019
B.Tech. in Biotechnology (BT)	VIII	01-05-2019	28-05-2019
B.Tech. in Chemical Engineering (CM)	VIII	01-05-2019	28-05-2019
B.Tech. in Civil Engineering (CE)	VIII	01-05-2019	28-05-2019
B.Tech. in Computer Science Engineering (CS)	VIII	01-05-2019	28-05-2019
B.Tech. in Electrical Engineering (EE)	VIII	01-05-2019	28-05-2019
B.Tech. in Electronics Engineering (EC)	VIII	01-05-2019	28-05-2019
B.Tech. in Electronics & Telecommunication Engineering (ET)	VIII	01-05-2019	28-05-2019
B.Tech. in Information Technology (IT)	VIII	01-05-2019	28-05-2019
B.Tech. in Mechanical Engineering (ME)	VIII	01-05-2019	28-05-2019

4. Initiatives Taken for Exam Reforms based on the latest (2018-19) guidelines issued by the All India Council for Technical Education

1. Conduction of Internal Vivas, checking of student laboratory files and **Time-Tables were displayed for internal viva at the department level .**
2. Guidelines for evaluating the VIII semester course "Professional Development" (01 credit course).

Following guidelines and evaluation criteria have been approved for evaluating the course "Professional Development".

PERFORMANCE METRICS		
Categories	Suggestive Activities	Marks Assigned
Institute Level* (C1)	Participation in **Institute level** technical events such as quizzes, extemporary, debate, student volunteers, seminar, professional society local chapters (IET,IEEE,ISTE,IETE),NCC, etc.	**02 Marks** for each participation (maximum 06)
State Level* (C2)	Participation in **State level** technical events such as Robotics, Coding challenge, Cultural cum technical fest, technical symposium, volunteers, hackathon, sports etc.	**03 marks** for each participation (Maximum 09)
National level* (C3)	Participate in **National level** events such as hands on workshop, national level seminar, national conference, Entrepreneurship, model making, techno culture fest, national youth festival, research conclave, project competition, volunteers, sports festival etc.	**05 marks** for each participation (Maximum 15)
MOOC's** (C4)	Successfully completed technical **certification course in any MOOC's** platform such as (NPTEL/SWAYAM/EdX/Coursera/Class Central etc)	**10 marks** for each course (Maximum 20)
Evaluation		
Formula	Marks Scored	

(C1x2 + C2x3 + C3x5 +C4x10)=	

3. A workshop was conducted for preparing "**template of question paper pattern**" and to finalize the most suitable template conforming to the recent guidelines issued by AICTE and inclusive of following exam reform recommendations

4. **Two-step process for bringing clarity to Programme Outcomes** (POs): Formulating competencies and performance indicators from POs which can be used to clearly set assessment goals that are synchronised with outcome based Education.

5. Guidelines and sample papers for using **Bloom's taxonomy to design the assessment** that will demonstrate the achievement of higher order thinking skills.

6. Using **different assessment methods to assess higher order and professional skills** like course project, open –ended experiments in labs, project based learning modules, MOOCs, Co-curricular experiences, Mini/Minor projects, final year projects, internship experiences, E-portfolio of student works.

7. Using **rubrics as assessment tools** for measuring outcomes.

8. Questions were mapped with Bloom's Levels,Course Outcomes (CO),Programme Outcome (PO)

9. **Evaluation of Summer Internship Programmes (SIP-I & SIP-II)**

[Internship is compulsory as per AICTE mandate and it is conducted and assessed/evaluated in-house during the summer vacations for batches admitted under flexible curriculum from 2017-18 onwards. However, its evaluation is reflected as follows in year 2018-19:

S.No.	Course	*Minimum Hours	Year (in which Internship to be offered)	Evaluation
1.	Summer Internship Project-I (Institute Level)	60 Hours	First Year	III Semester (02 Credits)
2.	Summer Internship Project-II (Soft Skills)	90 Hours	Second Year	V Semester (03 Credits)
3.	Summer Internship Project -III (On Job Training)	150 Hours	Third Year	VII Semester (02 Credits)

In case, a student fails to appear (due to valid cause) / acquire minimum score, the Head of Concerning Department may schedule the re-conduction of internship program for such students and the same will be monitored and reviewed by the Dean Student Welfare.

5. Automation and IT integration for Examination

1. The procurement of examination server was initiated. The institute ERP system started in parallel to the existing Information management System (IMS) first on trial basis. After ensuring that the performance is satisfactory, the institute ERP has started.

The Institute MOODLE is working very effectively and is being used for monitoring 10 different routine academic and the report

Quiz submission	MOODLE
Assignment submission and Evaluation	MOODLE
Availability of Question Banks	MOODLE
Availability of Model Answer Script	MOODLE
Exam Form submission	IMS/ECS Online
Availability of End Term Admit Card	IMS/ECS Online

Preparation of Seating Plan	IMS/ECS Online
Result Preparation	IMS/ECS Online
Displaying of result	IMS/ECS Online
Applying for Revaluation	IMS/ECS Online
Question Paper Feedback (No. 295)	MOODLE
Course Outcome Feedback	MOODLE
Uploading of Question paper solution	MOODLE
Automation of activities related to End Sem Exam Activities through ECS server	1. Exam form forwarding by the HoD 2. Filling of exam form 3. Issuing of exam admit card to students 4. Preparation of Seating plan for exam 5. Marks filling of assignment/quiz and mid sem exam of theory and practical course by the course faculty 6. Porting of end sem exam marks of theory courses on IMS after compiling marks through reading bar code of OMR sheet of answer books 7. Result preparation 8. Tabulation Report generation 9. Declaration of result to students 10. Applying and declaration of result of revaluation and retotaling.

2. Digital submission (on CD) of B.E/M.E./M.Tech./dissertation **project reports / dissertation in soft copy (pdf file with scanned copy of candidate declaration and other required certificates)** and conduction of only M.E./M.Tech examination through Online platform.**It is also decided to make the partial detail (title, abstract, keywords) public on the institute website. An abstract in Hindi, consisting of about 250 words will be written at the beginning.**

6. Evaluation

The Onscreen valuation was carried out from Dec 2018 session. The Digitization of valuation enabled automated digital evaluation for reliable and timely results, and real-time monitoring for superior control over the marking process.After an examination , the paper-based answer scripts are sent to a scanning set up of OSM system provided by We shine Tech. Here the candidate details are masked, and bar-codes are assigned for tracking. The answer scripts are then scanned, digitized, encrypted, and stored in secure data centres. This helps to avoid tampering, misuse, fraudulent use and reduces the chance of bias-based evaluation.

The encrypted answer scripts are distributed electronically, enabling examiners to mark on-screen, and include comments and annotations as they would in traditional marking. The digital evaluation system's internal messaging system improves collaboration and coordination.

Session	Dec 2018	June 2019
No.of Answer Books Evaluated	21332	22370

	No. of faculty members involved in evaluation	**196**	**171**

7. Summary Of Question Papers Set For Session 2018-19 (REGULAR)

S.No.	Description	December Session (Odd Semester)	June Session (Even Semester)
1	Number of Question Papers Allocated	556	551
2	Number of Faculty Members Participated	123	116
3	Total Number of Question Papers Generated	551	455
4	Category Wise Question Papers :	551	455
5	Number of Question Papers Set Externally	60	55
6	Percentage of Question Papers Set Externally	11%	12%
7	Number of External Paper Setters	40	38

8. Result Analysis

Odd Semester (Dec, 2018)

S.No	Branch Name	Semester	No. Of students registered	No. Of students passed	Pass %	No. of Students With Over All Grade						
						A+	A	B+	B	C+	C	D
1.	CE	I	121	77	63	00	12	16	24	24	01	00
		III	137	106	77	03	15	38	35	15	00	00
		V	134	113	84	00	13	16	42	36	06	00
		VII	132	118	89	02	09	30	65	12	00	00
2.	ME	I	127	94	74	00	02	26	41	25	00	00
		III	135	109	80	00	07	28	44	29	01	00
		V	132	112	84	00	11	45	30	22	04	00
		VII	132	124	93	00	08	57	47	12	00	00
3.	AU	I	54	29	53	00	01	08	10	10	00	00
		III	56	33	58	00	01	05	21	06	00	00
		V	64	52	81	00	03	13	18	17	01	00
		VII	52	44	84	00	00	14	27	03	00	00
4.	EE	I	129	101	78	00	24	30	38	08	01	00

5

S.No	Branch Name	Semester										
		III	136	102	75	00	13	35	40	14	00	00
		V	146	134	91	00	30	71	32	01	00	00
		VII	121	117	96	00	17	69	30	01	00	00
5.	EC	I	122	111	90	01	24	52	29	05	00	00
		III	128	98	76	03	15	27	32	21	00	00
		V	137	122	89	01	27	45	38	11	00	00
		VII	116	103	88	03	25	40	31	04	00	00
6.	ET	I	62	55	88	00	04	20	21	10	00	00
		III	60	47	78	00	04	12	20	11	00	00
		V	44	34	77	00	07	16	10	01	00	00
-	-	-	55	53	96	00	08	23	27	05	00	00
7.	CSE	I	123	112	91	01	19	43	36	13	00	00
		III	143	124	86	04	25	42	36	17	00	00
		V	144	125	86	00	19	54	40	11	01	00
		VII	129	124	96	00	25	63	32	04	00	00
8.	IT	I	63	55	87	00	11	22	18	04	00	00
		III	67	58	86	02	12	16	19	09	00	00
		V	69	60	86	00	03	30	21	06	00	00
		VII	64	62	96	00	10	36	15	01	00	00
9.	CM	I	53	39	73	00	00	06	17	16	00	00
		III	53	38	71	01	07	04	16	10	00	00
		V	54	44	81	00	02	11	19	17	00	00
		VII	50	47	94	00	03	21	212	02	00	00
10.	BT	I	09	06	66	00	00	01	01	04	00	00
		III	04	04	100	00	00	02	01	01	00	00
		V	09	09	100	00	02	05	02	00	00	00
		VII	06	06	100	00	01	02	03	00	00	00
11.	B Arch	I	37	30	81	00	08	19	03	00	00	00
		III	41	39	95	00	09	20	09	01	00	00
		V	40	39	97	00	18	18	03	00	00	00
		VII	29	29	100	01	10	15	03	00	00	00
		IX	40	40	100	00	29	07	04	00	00	00
12.	ME.	I	38	32	90	00	04	22	06	00	00	00
		III	50	44	92	00	12	31	01	00	00	00
13.	M.Tech	I	40	36	91	00	04	21	10	01	00	00
		III	65	64	97	00	22	36	06	00	00	00
14.	MUP	I	18	17	94	01	07	07	02	00	00	00
		III	15	13	86	01	06	03	03	00	00	00
15.	MCA	I	26	17	65	00	01	09	07	00	00	00
		III	65	56	86	00	04	30	19	03	00	00
		V	61	56	91	01	07	27	21	00	00	00

Even Semester (June 2019)

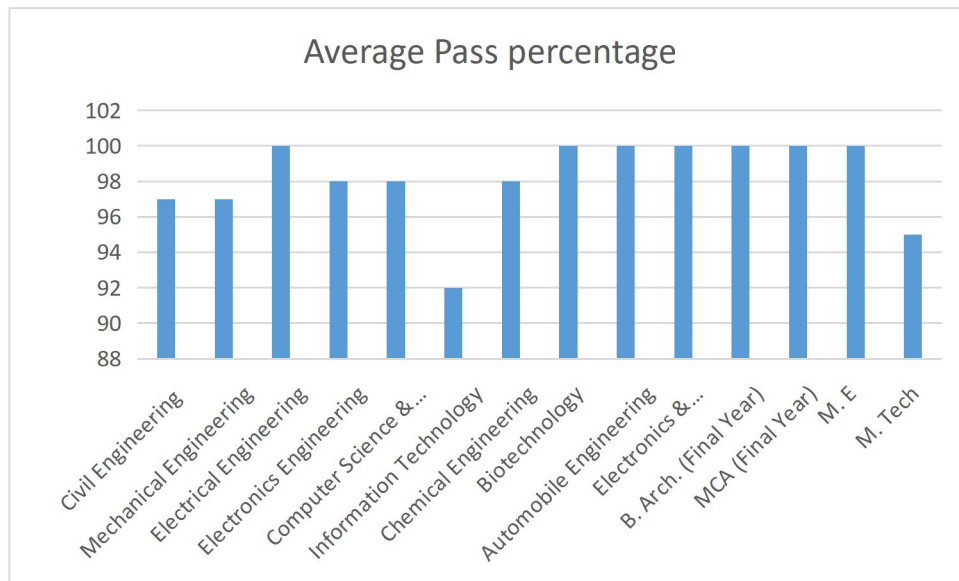| S.No	Branch Name	Semester	No. Of students registered	No. Of students passed	Pass %	No. of Students With Over All Grade		

						A+	A	B+	B	C+	C	D
1.	CE	II	118	89	75	00	17	17	34	21	00	00
		IV	141	103	73	03	14	27	31	26	02	00
		VI	137	122	89	03	13	41	54	11	00	00
		VIII	136	132	97	01	22	84	24	01	00	00
2.	ME	II	125	109	87	01	17	45	35	11	00	00
		IV	136	103	75	00	04	24	41	30	04	00
		VI	137	123	89	00	18	45	32	28	00	00
		VIII	133	130	97	00	42	73	15	00	00	00
3.	AU	II	54	42	77	00	04	14	08	16	00	00
		IV	55	34	61	00	02	03	18	11	00	00
		VI	64	50	78	00	04	15	23	08	00	00
		VIII	58	58	100	00	18	32	08	00	00	00
4.	EE	II	129	109	84	01	23	36	44	05	00	00
		IV	137	109	79	01	16	31	36	22	03	00
		VI	144	118	81	00	29	51	33	05	00	00
		VIII	124	124	100	00	56	58	10	00	00	00
5.	EC	II	121	112	92	00	20	34	35	18	05	00
		IV	131	115	87	02	18	41	30	20	04	00
		VI	140	123	87	00	14	52	41	16	00	00
		VIII	123	121	98	04	35	61	20	01	00	00
6.	ET	II	62	54	87	00	01	20	19	13	01	00
		IV	62	53	85	00	05	17	26	05	00	00
		VI	47	35	74	00	05	18	09	02	01	00
		VIII	57	57	100	00	16	33	08	00	00	00
7.	CSE	II	119	104	87	01	11	36	35	18	03	00
		IV	146	133	91	00	17	50	48	18	00	00
		VI	149	140	93	01	23	63	37	16	00	00
		VIII	130	128	98	01	39	56	30	02	00	00
8.	IT	II	62	55	88	00	09	18	16	10	02	00
		IV	69	63	91	00	13	25	18	07	00	00
		VI	70	65	92	00	06	33	22	04	00	00
		VIII	66	61	92	01	21	30	08	01	00	00
9.	CM	II	52	46	88	00	01	09	23	13	00	00
		IV	52	44	84	00	03	08	09	19	05	00
		VI	53	51	96	00	07	23	07	13	01	00
		VIII	53	52	98	00	20	27	04	01	00	00
10.	BT	II	09	06	66	00	02	01	02	01	00	00
		IV	04	04	100	00	00	02	00	02	00	00
		VI	09	09	100	00	01	05	03	00	00	00
		VIII	07	07	100	00	02	05	00	00	00	00
11.	B. Arch	II	36	35	97	00	07	25	03	00	00	00
		IV	41	35	85	00	10	21	03	01	00	00
		VI	40	39	97	00	15	23	00	01	00	00
		VIII	29	29	100	00	13	10	05	01	00	00
		X	40	40	100	00	03	30	07	00	00	00
12.	M E	II	36	34	90	00	15	18	01	00	00	00
		IV	21	21	100	00	15	05	01	00	00	00

13.	M. Tech	II	39	36	92	00	08	20	07	01	00	00	00
		IV	40	38	95	02	17	18	01	00	00	00	00
14.	MUP	II	15	15	100	00	05	06	04	00	00	00	00
		IV	14	14	100	00	00	06	07	01	00	00	00
15.	MCA	II	25	22	88	00	01	10	11	00	00	00	00
		IV	64	53	82	00	03	21	20	09	00	00	00
		VI	61	61	100	02	42	16	01	00	00	00	00

9. Average Pass Percentage of Passing Out Batch

Programme Code	Programme Name	Number of students appeared in the final year examination	Number of students passed in final Semester /year examination	Pass %
B.E. (Final Year)	Civil Engineering	136	132	97
	Mechanical Engineering	133	130	97
	Electrical Engineering	124	124	100
	Electronics Engineering	123	121	98
	Computer Science & Engineering	130	128	98
	Information Technology	66	61	92
	Chemical Engineering	53	52	98
	Biotechnology	7	7	100
	Automobile Engineering	58	58	100
	Electronics & Telecommunication Engineering	57	57	100
B. Arch. (Final Year)	Architecture	40	40	100
MCA (Final Year)	Master in Computer Application	61	61	100
M.E. (Final Year)	Construction Technology & Management Construction Technology & Management (PT) Structural Engineering Communication Control & Networking Industrial Systems & Drives Measurement and Control Material Handling	21	21	100
M.Tech. (Final Year)	Environmental Engineering Cyber Security Computer Science & Engineering Information Technology Microwave Engineering Production Engineering Biotechnology	40	38	95

Average Pass percentage

10. Grievances reported by students regarding evaluation process (2018-19)

No. Of students appeared in exam	No. of grievances reported	% of grievances
4292	43	1.0%