MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

Scheme of Examination (B.Tech. Electronics and Telecommunication Engineering)
GROUP A: I Semester [For batches admitted in Academic Session 2018-19 onwards]

S.No.	Subject Code	Category	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours per week			Total Credits
				Theory Slot			Practical Slot						
				End Sem.	Mid Sem Exam.	Quiz/ Assignment	End Sem.	Lab work & Sessional		L	T	P	
1.	100201	BSC	Engineering Physics (BSC-1)	70	20	10	30	20	150	2	1	2	4
2.	100202	HSMC	Energy, Environment, Ecology & Society (HSMC-1)	70	20	10	-	-	100	3	-	-	3
3.	100203	ESC	Basic Computer Engineering (ESC-1)	70	20	10	30	20	150	3	-	2	4
4.	100204	ESC	Basic Mechanical Engineering(ESC-2)	70	20	10	30	20	150	3	-	2	4
5.	100205	ESC	Basic Civil Engineering & Mechanics(ESC-3)	70	20	10	30	20	150	3	-	2	4
6.	100206	HSMC	Language Lab. & Seminars(HSMC-2)	-	-	-	30	20	50	-	-	4	2
			Total	350	100	50	150	100	750	14	1	12	21

Induction programme of first three weeks (MC) : Physical activity, Creative Arts, Universal Human Values, Literary, Proficiency Modules, Lectures by Eminent People, Visits to local Areas, Familiarization to Dept./Branch & Innovations

GROUP A: (Electrical, Electronics, Computer Science & Engineering, Information Technology, Electronics & Telecommunication)
GROUP B: (Civil, Mechanical, Chemical, Biotech, Automobile)
01Theory Period = 1 Credit; 02 Practical Periods = 1 Credit

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Scheme of Examination (B.Tech. Electronics and Telecommunication Engineering)
GROUP A: II Semester *[For batches admitted in Academic Session 2018-19 onwards]*

S.No.	Subject Code	Category	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours per week			Total Credits
				Theory Slot			Practical Slot						
				End Sem.	Mid Sem.	Quiz/ Assignment	End Sem.	Lab work & Sessional		L	T	P	
1.	100101	BSC	Engineering Chemistry (BSC-2)	70	20	10	30	20	150	3	-	2	4
2.	100102	BSC	Mathematics-I (BSC-3)	70	20	10	-	-	100	3	1	-	4
3.	100103	HSMC	Technical English (HSMC-3)	70	20	10	30	20	150	3	-	2	4
4.	100104	ESC	Basic Electrical & Electronics Engineering(ESC-4)	70	20	10	30	20	150	3	-	2	4
5.	100105	ESC	Engineering Graphics(ESC-5)	70	20	10	30	20	150	2	-	2	3
6.	100106	ESC	Manufacturing Practices(ESC-6)	-	-	-	30	20	50	-	-	2	1
			Total	350	100	50	150	100	750	14	1	10	20

Summer Internship Project –I (Institute Level) (Qualifier): Minimum two-week duration

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Scheme of Examination (B.Tech. Electronics and Telecommunication Engineering)
III Semester [For batches admitted in Academic Session 2018-19 onwards]

S.No.	Subject Code	Category	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours per week			Total Credits
				Theory Slot			Practical Slot						
				End Sem.	Mid Sem. Exam.	Quiz/ Assignment	End Sem	Term work		L	T	P	
								Lab Work & Sessional					
1.	100001	BSC	Mathematics-II (BSC-4)	70	20	10	-	-	100	3	1	-	4
2.	200301	DC	Electronics – I (DC-1)	70	20	10	-	-	100	2	1	2	4
3.	200302	DC	Digital Circuits and Systems (DC-2)	70	20	10	30	20	150	3	-	2	4
4.	200303	DC	Network Theory (DC-3)	70	20	10	30	20	150	3	-	2	4
5.	200304	DC	Signals& Systems (DC-4)	70	20	10	30	20	150	3	-	2	4
6.	200305*	DLC	Software Lab Introduction to MATLAB (DLC-1)	-	-	-	30	20	50	-	-	2	1
7.	200306#	SEMINAR/ SELF STUDY	Self learning/Presentation (SWAYAM/NPTEL/ MOOC)#	-	-	-	-	25	25	-	-	2	1
8.	200307	DLC	Summer Internship Project-I (Institute Level (Evaluation)	-	-	-	25	-	25			4	2
			Total	350	100	50	145	105	750	14	3	14	24
9.	100002$	MC	Biology for Engineers(Audit Course) (MC)	70	20	10	-	-	100	3	-	-	-
			NSS/NCC					Qualifier					

Compulsory registration for one online course using SWAYAM/NPTEL/ MOOC, evaluation through attendance, assignments and presentation.
$ Course will run for GroupA/B in III/IV semester respectively (This is a non-credit course and it is optional to appear & pass in the end semester examination. However, a separate mark sheet will be issued to those who will qualify)
* Virtual Lab to be conducted along with the traditional lab
GROUP A: (Electrical, Electronics, Computer Science & Engineering, Information Technology, Electronics & Telecommunication) & GROUP B: (Civil, Mechanical, Chemical, Biotech, Automobile)

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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Scheme of Examination (B.Tech. Electronics and Telecommunication Engineering)
IV Semester [For batches admitted in Academic Session 2018-19 onwards]

S. No.	Subject Code	Category	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours per week			Total Credits
				Theory Slot			Practical Slot						
				End Sem.	Mid Sem. Exam.	Quiz/ Assignment	End Sem.	Term work / Lab Work & Sessional		L	T	P	
1.	100003	BSC	Mathematics- III (BSC-5)	70	20	10	-	-	100	2	2	-	4
2.	200401	DC	Electronics II (DC-5)	70	20	10	30	20	150	2	1	2	4
3.	200402	DC	Analog Communication (DC-6)	70	20	10	30	20	150	2	1	2	4
4.	200403	DC	Communication Networks (DC-7)	70	20	10	-	-	100	3	1	-	4
5.	200404	DC	Stochastic Processes in Communication (DC-8)	70	20	10	-	-	100	3	1	-	4
6.	100004	MC	Cyber Security (MC)	70	20	10	-	-	100	2	1	-	3
7.	200405	DLC	Hardware Lab PCB Design Lab (DLC-2)	-	-	-	30	20	50	-	-	6	3
			Total	420	120	60	90	60	750	14	7	10	26
			NSS/NCC	Qualifier									
			Summer Internship Project-II (Soft Skills Based) for two weeks duration: Evaluation in V Semester										

*Virtual Lab to be conducted along with the traditional lab

HONOURS
1) Cloud computing
2) Solid state physics
3) Solar photovoltaic fundamentals technology & application

Minors :-
1) Power electronics
2) Digital Circuit
3) Analog communication

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Scheme of Examination (B.Tech. Electronics and Telecommunication Engineering)
V Semester [For batches admitted in Academic Session 2018-19 onwards]

S. No.	Subject Code	Category	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours per week			Total Credits
				Theory Slot			Practical Slot			L	T	P	
				End Sem.	Mid Sem Exam.	Quiz/ Assisgnment	End Sem.	Lab work & Sessional					
1.	100005*	HSMC	Ethics, Economics, Entrepreneurship& Management (HSMC-4)	70	20	10	-	-	100	3	-	-	3
2.	200501	DC	Electromagnetic Theory (DC-09)	70	20	10	-	-	100	3	1	-	4
3.	200502	DC	Microprocessor & Interfacing (DC-10)	70	20	10	30	20	150	2	1	2	4
4.	200503	DC	Linear Control Theory (DC-11)	70	20	10	30	20	150	2	1	2	4
5.	200505	DC	Digital Communication (DC-12)	70	20	10	30	20	150	2	1	2	4
6.	200506	DLC	Minor Project-I** (DLC-3)	-	-	-	30	20	50	-	-	2	1
7.	200507	DLC	Summer Internship Project-II (Evaluation) (DLC-4)	-	-	-	25	-	25	-	-	6	3
8.	200508	SEMINAR/ SELF STUDY	Self-learning/Presentation (SWAYAM/NPTEL/ MOOC)"	-	-	-	-	25	25	-	-	2	1
			Total	350	100	50	145	105	750	12	4	16	24
9.	100006$	MC	Indian Constitution & Traditional Knowledge (Audit Course) (MC)	70	20	10	Department level activity/workshop/awareness programme to be conducted; certificate of compliance to be submitted by HoD to the Exam Controller through Dean Academics		100	3	-	-	-

Additional Courses for obtaining Honours or minor Specialization by desirous students	Permitted to opt for maximum two additional courses for the award of Honours or Minor specialization

* Group A/B programmes will offer this course in V/VI Semester respectively.
$ Group A/B programmes will offer this course in V/VI Semester respectively. (This is a non-credit course and it is optional to appear & pass in the end semester examination. However, a separate mark sheet will be issued to those who will qualify)
** The minor project-I may be evaluated by an internal committee for awarding sessional marks.
" Compulsory registration for one online course using SWAYAM/NPTEL/ MOOC, evaluation through attendance, assignments and presentation
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Scheme of Examination B.Tech. VI Semester

[For batches admitted in Academic Session 2018-19 onwards]

S. No	Subject Code	Category	Subject Name	Maximum Marks Allotted					MOOCS		Total Marks	Contact Hours per week			Total Credits
				Theory Slot			Practical Slot					L	T	P	
				End Sem.	Mid Sem Exam.	Quiz/ Assignment	End Sem.	Lab work & Sessional	Assignments	Exam					
1.	200601	DC	Microprocessors & Data Interfacing (DC-13)	70	20	10	30	20	-	-	150	2	1	2	4
2.	200602	DC	Digital Signal Processing (DC-14)	70	20	10	-	-	-	-	100	3	1	-	4
3.	2006XX	DE	DE-1*	70	20	10	-	-	-	-	100	4	-	-	4
4.	2006XX	DE	DE-2*	-	-	-	-	-	25	75	100	4	-	-	4
5.		OC	OC-1*	70	20	10	-	-	-	-	100	2	1	-	3
6.	100007	MC	Disaster Management (MC)	70	20	10	-	-	-	-	100	3	-	-	3
7.	200606	DLC	Minor Project-II (DLC-5)	-	-	-	50	50	-	-	100	-	-	4	2
			Total	350	100	50	80	70	25	75	750	18	3	6	24
			Summer Internship-III (On Job Training) for Four weeks duration: Evaluation in VII Semester												
Additional Courses for obtaining Honours or minor Specialization by desirous students			Permitted to opt for maximum two additional courses for the award of Honours or Minor specialization												

* At least one of these courses must be run through SWAYAM/NPTEL/ MOOC

Department Electives-1 (DE-1) 2006XX	Optical Communication 200611	Antennas and Wave Propagation 200612	Telecom Switching and Networks 200613
Department Electives-2 (DE-2) (MOOC) 2006XX	Spread Spectrum Communications and Jamming 200651	Digital IC Design 200652	Fuzzy Sets, Logic and Systems & Application 200653

Open Course-1 (OC-1)	Intelligent Control 900104	Embedded Systems 900105

Honors	Advanced Power Electronics & Control	Integrated Circuits, MOSFETs, Op-Amps and their Application	High Power multilevel converter
Minors	Integrated Circuits, MOSFETs, Op-Amps and their Application	High Power multilevel converter	

Scheme of Examination B.Tech. VII Semester

[For batches admitted in The Academic Session 2018-19 onwards]   2018-2020 Batch

Subject Code	Category	Subject Name & Title	Maximum Marks Allotted							Total Marks	Contact Hours per week			Total Credits
			Theory Slot			Practical Slot		MOOCS						
			End Sem.	Mid Sem. Exam	Quiz/ Assignment	End Sem.	Term Work Lab Work & Sessional	Assignment	Exams		L	T	P	
2007XX	DE	DE-3	70	20	10	-	-	-	-	100	3	-	-	3
2007XX	DE	DE-4*	70	20	10	-	-	-	-	100	3	-	-	3
	OC	OC-2	-	-	-	-	-	25	75	100	2	-	-	2
	OC	OC-3	70	20	10	-	-	-	-	100	2	1	-	3
100008	MC	Intellectual Property Rights (IPR) (MC)	70	20	10	-	-	-	-	100	3	-	-	3
200701		VLSI Lab	-	-	-	-	-	-	-	100	2	-	-	2
200702	DLC	Summer Internship Project-III (04 weeks)	-	-	-	50	50	-	-	100	-	-	4	2
200703	DLC	Creative Problem Solving	-	-	-	50	50	-	-	100	-	-	4	2
						25	25			50	-	-	2	1
		Total	280	80	40	125	125	25	75	750	12	1	10	18

*Permitted to opt for maximum two additional courses for the award of Honours or Minor specialization

Department Elective-3 (DE-3) 2007XX	Radar and Radar Communication System 200711	VLSI Design 200712	Microwave Engineering 200713
Department Elective-4 (DE-4) MOOCS 2007XX	Digital Image Processing 200751	Introduction to Wireless Cellular Communication 200752	Milimeter wave Technology 200753
Open Course-2 (OC-2)	Satellite System (900206)		Consumer Electronics (900207)
Open Course-3 (OC-3)	MEMS & Mechatronics (900218)		Multimedia Communication (900219)

Honours	Microelectronic Device & Circuit	Data Science for Engineers	Design of photovoltaic systems
Minors	Microwave Engineering	Image Signal Processing	Control Engineering

DEAN (ACADEMICS)
M.I.T.S
GWALIOR 27/7/21

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR
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Scheme of Examination B.Tech. VIII Semester
[For batches admitted in Academic Session 2018-19 onwards]

ET

S.N.	Subject Code	Category	Subject Name & Title	Maximum Marks Allotted					MOOCS		Total Marks	Contact Hours per week			Total Credits
				Theory Slot			Practical Slot		Assignment	Exams					
				End Sem.	Mid Sem. Exam	Quiz/ Assignment	End Sem.	Term Work / Lab Work & Sessional				L	T	P	
1.	2008XX	DE	Departmental Elective-5*	-	-	-	-	-	25	75	100	4	-	-	4
2.	2008XX	DE	Departmental Elective-6*	-	-	-	-	-	25	75	100	3	-	-	3
3.	9006XX	OC	Open Course -4	-	-	-	-	-	25	75	100	2	-	-	2
5.	200804	DLC	Internship/Project (DLC-9)	-	-	-	250	150	-	-	400	-	-	6	3
6.	200805		Professional Development#	-	-	-		50	-	-	50	-	-	2	1
			Total	-	-	-	250	200	125	225	750	09	-	08	13

Additional Courses for obtaining Honours or minor Specialization by desirous students	Permitted to opt for maximum two additional courses for the award of Honours or Minor specialization

*All of these courses will run through SWAYAM/NPTEL/ MOOC

Evaluation will be based on participation/laurels brought by the students to the institution in national/state level technical and other events during the complete tenure of the UG program (participation in professional chapter activities, club activities, cultural events, sports, personality development activities, collaborative events and technical events)

List of DEs and OCs:

Department Electives-1 (DE-5) (2008XX)	Fundamental of power electronics (200854)	Biomedical Signal Processing (200855)	Power Management Integrated Circuits (200853)
Department Electives-1 (DE-6) (2008XX)	Design and Analysis of VLSI Subsystems (200861)	An Introduction to Information Theory (200862)	Fundamentals of MIMO Wireless Communication (200863)

Open Course-4 (OC-4)	Linear Dynamical Systems (900601)	Sensors and Actuators (900602)