

# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

**Scheme of Examination (B.Tech. Electronics 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			L	T	P	
				End Sem.	Mid Sem Exam.	Quiz/Assignment	End Sem.	Lab work & Sessional					
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
<b>Total</b>				<b>350</b>	<b>100</b>	<b>50</b>	<b>150</b>	<b>100</b>	<b>750</b>	<b>14</b>	<b>1</b>	<b>12</b>	<b>21</b>

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)**

**01 Theory Period = 1 Credit; 02 Practical Periods = 1 Credit**

*R. K. Ravi*

*P. S. Gupta*

*Sanjiv*

*S. S. Ravi*

*H. M. Gupta*

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## Scheme of Examination (B.Tech. Electronics 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			L	T	P	
				End Sem.	Mid Sem.	Quiz/Assignment	End Sem.	Lab work & Sessional					
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
			<b>Total</b>	<b>350</b>	<b>100</b>	<b>50</b>	<b>150</b>	<b>100</b>	<b>750</b>	<b>14</b>	<b>1</b>	<b>10</b>	<b>20</b>
<b>Summer Internship Project –I (Institute Level) (Qualifier): Minimum two-week duration</b>													

**GROUP A: (Electrical, Electronics, Computer Science & Engineering, Information Technology, Electronics & Telecommunication)**

**GROUP B: (Civil, Mechanical, Chemical, Biotech, Automobile)**

*R. K. Kulkarni*

*Pala P. P.*

*W. D.*

*W. D.*

*W. D.*

*W. D.*

*W. D.*

*W. D.*

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

## Scheme of Examination (B.Tech. Electronics 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			L	T	P	
				End Sem.	Mid Sem. Exam.	Quiz/ Assignment	End Sem	Term work					
								Lab Work & Sessional					
1.	100001	BSC	Mathematics-II (BSC-4)	70	20	10	-	-	100	3	1	-	4
2.	140301	DC	Electronics – I (DC-1)	70	20	10	20	20	100	1	1	2	4
3.	140302	DC	Digital Circuits and Systems (DC-2)	70	20	10	20 30	20 20	150	3	-	2	4
4.	140303	DC	Network Theory (DC-3)	70	20	10	30	20	150	3	-	2	4
5.	140304	DC	Signals & Systems (DC-4)	70	20	10	30	20	150	3	1	-	4
6.	140305*	DLC	Software Lab Introduction to MATLAB (DLC-1)	-	-	-	30	20	50	-	-	2	1
7.	140306#	SEMINAR/ SELF STUDY	Self learning/Presentation (SWAYAM/NPTEL/ MOOC)#	-	-	-	-	25	25	-	-	2	1
8.	140307	DLC	Summer Internship Project-I (Institute Level (Evaluation))	-	-	-	25	-	25	-	-	4	2
<b>Total</b>				<b>350</b>	<b>100</b>	<b>50</b>	<b>145</b>	<b>105</b>	<b>750</b>	<b>14</b>	<b>3</b>	<b>14</b>	<b>24</b>
9.	100002 <sup>s</sup>	MC	Biology for Engineers(Audit Course) (MC)	70	20	10	-	-	100	3	-	-	-
NSS/NCC				Qualifier									

<sup>#</sup> Compulsory registration for one online course using SWAYAM/NPTEL/ MOOC, evaluation through attendance, assignments and presentation.

<sup>s</sup> 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)**

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## Scheme of Examination (B.Tech. Electronics 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			L	T	P	
				End Sem.	Mid Sem. Exam.	Quiz/ Assignment	End Sem.	Term work					
								Lab Work & Sessional					
1.	100003	BSC	Mathematics- III (BSC-5)	70	20	10	-	-	100	2	2	-	4
2.	140401	DC	Electronics II (DC-5)	70	20	10	30	20	150	2	1	2	4
3.	140402	DC	Analog Communication (DC-6)	70	20	10	30	20	150	2	1	2	4
4.	140403	DC	Communication Networks (DC-7)	70	20	10	-	-	100	3	1	-	4
5.	140404	DC	Electronics Measurement and Instrumentation (DC-8)	70	20	10	-	-	100	3	1	-	4
6.	100004	MC	Cyber Security (MC)	70	20	10	-	-	100	2	1	-	3
7.	140405	DLC	Hardware Lab PCB Design Lab (DLC-2)	-	-	-	30	20	50	-	-	6	3
<b>Total</b>				<b>420</b>	<b>120</b>	<b>60</b>	<b>90</b>	<b>60</b>	<b>750</b>	<b>14</b>	<b>7</b>	<b>10</b>	<b>26</b>
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

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# MAHAVI INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

## Scheme of Examination (B.Tech. Electronics Engineering)

V Semester *For batches admitted in Academic Session 2019-20* onwards

2019-2023 *batch*

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/Assignment	End Sem.	Lab work & Sessional					
1.	100005*	HSMC	Ethics, Economics, Entrepreneurship & Management	70	20	10	-	-	100	3	-	-	3
	140502	DC	Electromagnetic Theory	70	20	10	-	-	100	3	1	-	4
	140503	DC	Data Communication	70	20	10	30	20	150	2	1	2	4
	140504	DC	Linear Control Theory	70	20	10	30	20	150	2	1	2	4
	140505	DC	Digital Communication	70	20	10	30	20	150	2	1	2	4
	140506	DLC	Minor Project-I**	-	-	-	30	20	50	-	-	2	1
	140507	DLC	Summer Internship Project-II (Evaluation)	-	-	-	25	-	25	-	-	6	3
	150508	SEMINAR SELF STUDY	Self-learning/Presentation (SWAYAM/NPTEL/MOOC)*	-	-	-	-	25	25	-	-	2	1
			<b>Total</b>	<b>350</b>	<b>100</b>	<b>50</b>	<b>145</b>	<b>105</b>	<b>750</b>	<b>12</b>	<b>4</b>	<b>16</b>	<b>24</b>
	100006*	MC	Indian Constitution & Traditional Knowledge (Audit Course) (MC)	70	20	10	-	-	100	3	-	-	-
				Department level activity/workshop/awareness programme to be conducted; certificate of compliance to be submitted by HoD to the Exam Controller through Dean Academics									
Additional Courses for obtaining Honours or Minor Specialization by eligible 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

GROUP A: (Electrical, Electronics, Computer Science & Engineering, Information Technology, Electronics & Telecommunication) & DEAN (ACADEMICS)  
 GROUP B: (Civil, Mechanical, Chemical, Biotech, Automobile) M.I.T.S.  
 Solar Photovoltaic Fundamentals, Technology and Applications  
 Analog Communication  
 GWALIOR

Honors	Cloud Computing	Solid State Physics	Solar Photovoltaic Fundamentals, Technology and Applications
Minors	Semiconductor Devices and Circuits	Digital Circuits	Analog Communication

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# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

**Scheme of Examination (B.Tech. Electronics Engineering)**

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

Corrected

S. No	Subject Code	Category	Subject Name	Maximum Marks Allotted					MOOCS		Total Marks	Contact Hours per week			Total Credits
				Theory Slot			Practical Slot		Assignment	Marks		L	T	P	
				End Sem.	Mid Sem Exam.	Quiz/ Assignment	End Sem.	Lab work & Sessional							
1.	140601	DC	Microprocessors & Interfacing (DC-13)	70	20	10	30	20	-	-	150	2	1	2	4
2.	140602	DC	Digital Signal Processing (DC-14)	70	20	10	-	-	-	-	100	3	1	-	4
3.	1406XX	DE	DE-1*	70	20	10	-	-	-	-	100	4	-	-	4
4.	1406XX	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.	140606	DLC	Minor Project-II (DLC-5)	-	-	-	50	50	-	-	100	-	-	4	2
<b>Total</b>				<b>350</b>	<b>100</b>	<b>50</b>	<b>80</b>	<b>70</b>	<b>25</b>	<b>75</b>	<b>750</b>	<b>18</b>	<b>3</b>	<b>6</b>	<b>24</b>
<b>Summer Internship-III (On Job Training) for Four weeks duration: Evaluation in VII Semester</b>															
Additional Courses for obtaining Honours or minor Specialization by desirous students				<b>Permitted to opt for maximum two additional courses for the award of Honours or Minor specialization</b>											

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

Department Electives-1 (DE-1) 1406XX	Optical Communication 140611	Antennas and Wave Propagation 140612	Telecom Switching and Networks 140613
Department Electives-2 (DE-2) (MOOC) 1406XX	Spread Spectrum Communications and Jamming 140651	Digital IC Design 140652	Fuzzy Sets, Logic and Systems & Application 140653

Open Course-1 (OC-1)	Intelligent Control 900104	Embedded Systems 900105
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Honors	Electromagnetic Waves in Guided and Wireless Media	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	

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# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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## B. Tech. VII Semester (Electronics Engineering)

**Effective for academic session 2019-2023**

S.N.	Subject Code	Category	Subject Name & Title	Maximum Marks Allotted					MOOCS		Total Marks	Contact Hours per week			Total Credits	Mode of Teaching (Online, Offline, Blended)	Mode of Exam
				Theory Slot			Practical Slot		Assignment	Exams		L	T	P			
				End Sem.	Mid Sem. Exam	Quiz/Assignment	End Sem.	Term Work Lab Work & Sessional									
1.	1407XX	DE	DE-3	70	20	10	-	-	-	-	100	3	-	-	3	Blended (2/1)	PP
2.	1407XX	DE	DE -4*	-	-	-	-	-	25	75	100	2	-	-	2	Online	MCQ
3.		OC	OC -2	70	20	10	-	-	-	-	100	2	1	-	3	Blended (2/1)	PP
4.		OC	OC-3	70	20	10	-	-	-	-	100	3	-	-	3	Blended (2/1)	PP
5.	100008	MC	Intellectual Property Rights (IPR) (MC)	70	20	10	-	-	-	-	100	2	-	-	2	Online (2/0)	MCQ
6.	140701	DLC	VLSI Lab (DLC-6)	-	-	-	50	50	-	-	100	-	-	4	2	Offline	SO
7.	140702	DLC	Summer Internship Project-III (DLC-7) (04 weeks)	-	-	-	50	50	-	-	100	-	-	4	2	Offline	SO
8.	140703	DLC	Creative Problem Solving (DLC-8)	-	-	-	25	25	-	-	50	-	-	2	1	Offline	SO
<b>Total</b>				<b>280</b>	<b>80</b>	<b>40</b>	<b>125</b>	<b>125</b>	<b>25</b>	<b>75</b>	<b>750</b>	<b>12</b>	<b>1</b>	<b>18</b>	<b>18</b>		
Additional Courses for obtaining Honours or minor Specialization by desirous students				Permitted to opt for <u>maximum two additional courses</u> for the award of Honours or Minor specialization													

Department Electives-1 (DE-3) (20071X)	Satellite and Radar Communication Systems 200711	VLSI Design 200712	Microwave Engineering 200713
Department Electives-2 (DE-4) (MOOCS) (20075X)	Digital Image Processing 200751	Introduction to Wireless Cellular Communication 200752	

Open Course-1 (OC-2)	Satellite System (900206)	Consumer Electronics (900207)
Open Course-1 (OC-3)	MEMS & Mechatronics (900218)	Multimedia Communication (900219)

<b>Honors</b>	Data Science for Engineers	Design of Photovoltaic Systems
<b>Minors</b>	Microwave Engineering	Introduction to Coding Theory

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DEAN (ACADEMICS)  
M.I.T.S  
GWALIOR

*M. Singh*

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## Scheme of Examination B.Tech. VIII Semester Electronics Engineering

**[For batches admitted in Academic Session 2019-20 onwards]**

Subject Code	Category	Subject Name & Title	Maximum Marks Allotted					MOOCS		Total Marks	Contact Hours per week			Total Credits	
			Theory Slot			Practical Slot		Assignment	Exams		L	T	P		
			End Sem.	Mid Sem. Exam	Quiz/ Assignment	End Sem.	Term Work								
															Lab Work & Sessional
1.	1408XX	DE	Departmental Elective-5*	-	-	-	-	-	25	75	100	4	-	-	4
2.	9006XX	OC	Open Course -4	-	-	-	-	-	25	75	100	2	-	-	2
3.	140804	DLC	Internship/Project (DLC-9)	-	-	-	250	150	-	-	400	-	-	12	6
4.	140805		Professional Development#	-	-	-	-	50	-	-	50	-	-	2	1
<b>Total</b>				-	-	-	250	200	50	150	650	06	-	14	13

Additional Courses for obtaining Honours or minor Specialization by desirous students	Permitted to opt for <u>maximum two additional courses</u> for the award of Honours or Minor specialization
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\*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) (1408XX)	Power Management Integrated Circuits (140853)	Fundamental of Power Electronics (140854)	Biomedical Signal Processing (140855)	Analysis and Design Principles of Microwave Antennas (140856)
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Open Course-4 (OC-4)	Linear Dynamical Systems (900601)	Sensors and Actuators (900602)
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DEAN (ACADEMICS)  
 MLTS  
 EVALUATOR

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