

**Shri G.S. Institute of Technology & Science, Indore**  
**Electronics & Instrumentation Engineering Department**  
**B.Tech**

II Year/ III Sem

Batch : 2022-2026  
 Academic Year 2023-24

S.no.	Category	Subject Code	Subject Name	Period/Week			Maximum Marks				Credits		Total Credits	Total Marks
				L	T	P	Theory		Practical		T	P		
							End Sem	CW	End Sem	SW				
1	DC-1	EI27001	Circuit Analysis & Synthesis	3		2	70	30	60	40	3	1	4	200
2	DC-2	EI27002	Fundamentals of Measurement	3		2	70	30	60	40	3	1	4	200
3	DC-3	EI27003	Electronics Devices & circuits	3		2	70	30	60	40	3	1	4	200
4	BSC-3	MA27014	Mathematics-III	3	1		70	30			4		4	100
5	DC-4	EI27006	Digital Electronics	3		2	70	30	60	40	3	1	4	200
6	MC-1	EIM2002	Environmental Science*	2				50						50
7	DLC-1	EI27498	Electronics Workshop			2			60	40		1	1	100
<b>Total</b>				<b>17</b>	<b>1</b>	<b>10</b>	<b>350</b>	<b>200</b>	<b>300</b>	<b>200</b>	<b>16</b>	<b>5</b>	<b>21</b>	<b>1050</b>

II Year/ IV Sem

S.no.	Category	Subject Code	Subject Name	Period/Week			Maximum Marks				Credits		Total Credits	Total Marks
				L	T	P	Theory		Practical		T	P		
							End Sem	CW	End Sem	SW				
1	DC-5	EI27501	Analog electronics	3		2	70	30	60	40	3	1	4	200
2	DC-6	EI27551	Sensors & Transducers	3		2	70	30	60	40	3	1	4	200
3	DC-7	EI27504	Circuit Design using HDLs	3		2	70	30	60	40	3	1	4	200
4	BSC-4	MA27563	Mathematics-IV	3	1		70	30			4		4	100
5	HU-1	HU27881	Values, Humanities & professional Ethics		2			100			2		2	100
6	HU-2	HU27506	Economics for Engineers	3			70	30			3		3	100
7	MC-2	HUM2052	Essence of Indian Knowledge Traditions*	2				50						50
8	DLC-2	EI27882	Software Workshop			2			60	40		1	1	100
<b>Total</b>				<b>17</b>	<b>3</b>	<b>8</b>	<b>350</b>	<b>300</b>	<b>240</b>	<b>160</b>	<b>18</b>	<b>4</b>	<b>22</b>	<b>1050</b>

\*Proposed in 27th Academic Council. Non credit mandatory subject

Internship-I To be completed any time during III/IV semester. Its evaluation/credits to be added in Semester V ( Minimum 4 Weeks Duration)

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Batch : 2021-2025

Academic Year 2023-24

III Year/ V Sem

S.no.	Category	Subject Code	Subject Name	Period/Week			Maximum Marks						Total	Total Marks
				L	T	P	Theory		Practical		Credits			
							End Sem	CW	End Sem	SW	T	P		
1	DC-7	IT37005	Data Structure	3		2	70	30	60	40	3	1	4	200
2	DC-8	EI37006	Microprocessor Systems	3		2	70	30	60	40	3	1	4	200
3	DC-9	EE37003	Control Systems	3		2	70	30	60	40	3	1	4	200
4	DC-10	EC37014	Analog & Digital Communication	3			70	30			3		3	100
5	PEC		Elective -I	3			70	30			3		3	100
6	DLC-3	EI37481	Test & Calibration			4			60	40		2	2	100
7	MC-3	HUM3701	Essence of Indian Knowledge Tradition	2				50						50
8	DLC-4	EI37482	Internship Evaluation- I			4				50		2	2	50
<b>Total</b>				<b>17</b>	<b>0</b>	<b>14</b>	<b>350</b>	<b>200</b>	<b>240</b>	<b>210</b>	<b>15</b>	<b>7</b>	<b>22</b>	<b>1000</b>

III Year/ VI Sem

S.no.	Category	Subject Code	Subject Name	Period/Week			Maximum Marks						Total	Total Marks
				L	T	P	Theory		Practical		Credits			
							End Sem	CW	End Sem	SW	T	P		
1	DC-11	EI37511	Filter Design & Simulation	3		2	70	30	60	40	3	1	4	200
2	DC-12	EI37513	High Frequency Engineering	3			70	30			3		3	100
3	DC-13	EC37512	Digital Signal Processing	3			70	30			3		3	100
4	DC-14	ME37502	Mechanical Measurements	3		2	70	30	60	40	3	1	4	200
5	PEC		Elective-II	3		2	70	30	60	40	3	1	4	200
6	DLC-5	EI37991	Mini Project			4			60	40		2	2	100
<b>Total</b>				<b>15</b>	<b>0</b>	<b>10</b>	<b>350</b>	<b>150</b>	<b>240</b>	<b>160</b>	<b>15</b>	<b>5</b>	<b>20</b>	<b>900</b>

Internship-II To be completed any time during V/VI semester. Its evaluation/credits to be added in Semester VII( Minimum 4 Weeks Duration)

Elective-I		
1	IP37251	Industrial Engineering & Management
2	EI37252	Instrument System Design
3	CO37253	Artificial Intelligence

Elective-II		
1	EI37701	Microcontroller & Embedded System
2	EI37xxx	Smart Cities & Instrumentation Engineering
3	EI37xxx	Agriculture & Environment Instrumentation

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IV Year/ VII Sem

S.no.	Category	Subject Code	Subject Name	Period/Week			Maximum Marks				Credits		Total	Total Marks
				L	T	P	Theory		Practical		T	P		
							End Sem	CW	End Sem	SW				
1	DC-15	EI47053	Process Instrumentation	3	1	2	70	30	60	40	4	1	5	200
2	DC-16	EE47002	Power Electronics	3		2	70	30	60	40	3	1	4	200
3	DC-17	EI47055	VLSI Design	3		2	70	30	60	40	3	1	4	200
4	PEC		Elective -III	3			70	30			3		3	100
5	PEC		Elective -IV	3			70	30			3		3	100
7	DLC-7	EI47499	Major Project-I(AB Group)			6			60	40		3	3	100
	DLC-8	EI47999	Major Project-II(BA Group)			10			60	40		5	5	100
<b>Total (With AB Group)</b>				<b>15</b>	<b>1</b>	<b>12</b>	<b>350</b>	<b>150</b>	<b>240</b>	<b>160</b>	<b>16</b>	<b>6</b>	<b>22</b>	<b>900</b>
<b>Total (With BA Group)</b>				<b>15</b>	<b>1</b>	<b>16</b>	<b>350</b>	<b>150</b>	<b>240</b>	<b>160</b>	<b>16</b>	<b>8</b>	<b>24</b>	<b>900</b>

IV Year/ VIII Sem

S.no.	Category	Subject Code	Subject Name	Period/Week			Maximum Marks				Credits		Total	Total Marks
				L	T	P	Theory		Practical		T	P		
							End Sem	CW	End Sem	SW				
1	DC-18		Elective-V	3			70	30			3		3	100
2	DC-19		Elective -VI	3			70	30			3		3	100
3	Internship	EI47881	Industrial Training/ Internship (min 6 week/seminar with report)							100		8	8	100
4	DLC-8	EI47999	Major Project-II(AB Group)			10			60	40		5	5	100
5	DLC-7	EI47499	Major Project-I(BA Group)			6			60	40		3	3	100
<b>Total (With AB Group)</b>				<b>6</b>	<b>0</b>	<b>10</b>	<b>140</b>	<b>60</b>	<b>60</b>	<b>140</b>	<b>6</b>	<b>13</b>	<b>19</b>	<b>400</b>
<b>Total (With BA Group)</b>				<b>6</b>	<b>0</b>	<b>6</b>	<b>140</b>	<b>60</b>	<b>60</b>	<b>140</b>	<b>6</b>	<b>11</b>	<b>17</b>	<b>400</b>

<b>Semester VII</b>		
<b>Elective-III</b>		
1	EI47257	Fiber Optics and Photonics
2	XX47201	Data structure
<b>Elective-IV</b>		
1	EI47322	VLSI Technology
2	EI47301	Intelligent Instrumentation

<b>Semester VIII</b>		
<b>Elective-V</b>		
1	BM47613	Medical Instrumentation/NPTEL
2	EI47611	Digital Image Processing
3	EI47612	Computer Network
<b>Elective-VI</b>		
1	EI47776	Automation in Instrumentation/NP
2	EI47701	Data Acquisition Systems