

## GR-14 COURSE STRUCTURE

### B. Tech. ELECTRONICS & COMMUNICATION Engineering

I Year

I Semester

S. No.	Subject Codes	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
			T	P	D		Int.	Ext.	Total
1.	14199101	English – I	4	-	-	3	30	70	100
2.	14199102	Mathematics – I	4	-	-	3	30	70	100
3.	14199103	Fundamentals of Computer Programming	4	-	-	3	30	70	100
4.	14199104	Applied Mechanics	4	-	-	3	30	70	100
5.	14199105	Basic Engineering Drawing	-	-	4	3	30	70	100
6.	14199191	Professional Ethics and Human Values	4	-	-	-	-	-	-
7.	14199111	English Communication Lab-I	-	3	-	2	50	50	100
8.	14199112	Computer Programming fundamentals Lab	-	3	-	2	50	50	100
9.	14199181	Engineering workshop and IT workshop		3	-	2	50	50	100
		<b>Total</b>	<b>20</b>	<b>9</b>	<b>4</b>	<b>21</b>	<b>300</b>	<b>500</b>	<b>800</b>

T- THEORY    P – PRACTICAL    D- DRAWING    C – CREDITS    Int. – INTERNAL    Ext. - EXTERNAL

## GR-14 COURSE STRUCTURE

### B. Tech. ELECTRONICS & COMMUNICATION Engineering

I Year

II Semester

S. No.	Subject Codes	Subject Title	Periods per week			C	Scheme of Examination		
			T	P	D		Int.	Ext.	Total
1.	14199201	English – II	4	-	-	3	30	70	100
2.	14199203	Mathematics –II	4	-	-	3	30	70	100
3.	14199202	Mathematics – III	4	-	-	3	30	70	100
4.	14199205	Advanced Computer Programming	4	-	-	3	30	70	100
5.	14199204	Engineering Physics	4	-	-	3	30	70	100
6.	14199206	Environmental Studies	4	-	-	3	30	70	100
7.	14199211	English Communication Lab-II	-	3	-	2	50	50	100
8.	14199213	Advanced Computer Programming Lab	-	3	-	2	50	50	100
9.	14199212	Engineering Physics Lab	-	3	-	2	50	50	100
<b>Total</b>			<b>24</b>	<b>9</b>		<b>24</b>	<b>330</b>	<b>570</b>	<b>900</b>

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## GR-14 COURSE STRUCTURE

### B. Tech. ELECTRONICS & COMMUNICATION Engineering II Year I Semester

S. No.	Subject Codes	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
			T	P	D		Int.	Ext.	Total
1.	14149301	Managerial Economics & Financial Analysis	4	-	-	3	30	70	100
2.	14142302	Electrical Technology	4	-	-	3	30	70	100
3.	14142303	Network Analysis	4	-	-	3	30	70	100
4.	14140304	Electronic Devices and Circuits	4	-	-	3	30	70	100
5.	14140305	Switching Theory and Logic Design	4	-	-	3	30	70	100
6.	14140306	Signals & Systems	4	-	-	3	30	70	100
7.	14142311	Networks & Electrical Technology Lab	-	3	-	2	50	50	100
8.	14140312	Electronic Devices and Circuits Lab	-	3	-	2	50	50	100
9.	14149397	Soft skills - I	4	-	-	-	-	-	-
		<b>Total</b>	<b>28</b>	<b>6</b>		<b>22</b>	<b>280</b>	<b>520</b>	<b>800</b>

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## GR-14 COURSE STRUCTURE

### B. Tech. ELECTRONICS & COMMUNICATION Engineering

II Year

II Semester

S. No.	Subject codes	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
			T	P	D		Int.	Ext.	Total
1.	14142402	Control Systems	4	-	-	3	30	70	100
2.	14149401	Random Variable and Stochastic Process	4	-	-	3	30	70	100
3.	14140403	Electronic Circuits Analysis	4	-	-	3	30	70	100
4.	14140404	Digital System Design & Digital IC Applications	4	-	-	3	30	70	100
5.	14140405	EM Waves and Transmission Lines	4	-	-	3	30	70	100
6.	14140406	Pulse and Digital Circuits	4	-	-	3	30	70	100
7.	14140411	Electronic Circuits Analysis Lab	-	3	-	2	50	50	100
8.	14140412	Pulse & Digital Circuits Lab	-	3	-	2	50	50	100
		<b>Total</b>	<b>24</b>	<b>6</b>		<b>22</b>	<b>280</b>	<b>520</b>	<b>800</b>

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## GR-14 COURSE STRUCTURE

### B. Tech. ELECTRONICS & COMMUNICATION Engineering

III Year

I Semester

S. No.	Subject Code	Subject Title	Periods per week			C	Scheme of Examination		
			T	P	D		Int.	Ext.	Total
1.	14149501	Management Science	4	-	-	3	30	70	100
2.	14140502	Computer Architecture & Organization	4	-	-	3	30	70	100
3.	14140503	Linear IC Applications	4	-	-	3	30	70	100
4.	14140504	Antennas and Wave Propagation	4	-	-	3	30	70	100
5.	14140505	Analog Communications	4	-	-	3	30	70	100
6.	14140511	Digital System Design & DICA Lab	-	3	-	2	50	50	100
7.	14140512	Linear IC Applications Lab	-	3	-	2	50	50	100
8.	14140513	Analog Communications Lab	-	3	-	2	50	50	100
9.	14149596	Soft skills - II	4	-	-	-	-	-	-
10.	14140521	Mini Project	-	-	-	2	100	-	100
		<b>Total</b>	<b>24</b>	<b>9</b>		<b>23</b>	<b>400</b>	<b>500</b>	<b>900</b>

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### B. Tech. ELECTRONICS & COMMUNICATION Engineering

III Year

II Semester

S. No.	Subject Code	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
			T	P	D		Int.	Ext.	Total
1.	14145601	Computer Networks	4	-	-	3	30	70	100
2.	14140602	Microprocessors and Microcontrollers	4	-	-	3	30	70	100
3.	14140603	Digital Signal Processing	4	-	-	3	30	70	100
4.	14140604	Digital Communication	4	-	-	3	30	70	100
5.		Open Elective	4	-	-	3	30	70	100
6.	14140611	Microprocessors and Microcontrollers Lab	-	3	-	2	50	50	100
7.	14140612	Digital Communications Lab	-	3	-	2	50	50	100
8.	14140613	Digital Signal Processing Lab	-	3	-	2	50	50	100
9.	14140681	Seminar	4	-	-	1	50	-	50
		<b>Total</b>	<b>24</b>	<b>9</b>		<b>22</b>	<b>350</b>	<b>500</b>	<b>850</b>

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## GR-14 COURSE STRUCTURE

### B. Tech. ELECTRONICS & COMMUNICATION Engineering

IV Year

I Semester

S. No.	Subject Code	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
			T	P	D		Int.	Ext.	Total
1.	14140701	VLSI Design	4	-	-	3	30	70	100
2.	14140702	Microwave Engineering	4	-	-	3	30	70	100
3.	14140703	Optical Communication	4	-	-	3	30	70	100
4.	14140704	Cellular and Mobile Communication	4	-	-	3	30	70	100
5.		<b>Elective- I</b>	4	-	-	3	30	70	100
6.		<b>Elective- II</b>	4	-	-	3	30	70	100
7.	14140711	VLSI Lab	-	3	-	2	50	50	100
8.	14140712	Microwave & Optical Communication Lab	-	3	-	2	50	50	100
9.	14140731	<b>Summer Internship</b>	-	-	-	3	100	-	100
10.	14149797	IPR & Patents	4	-	-	-	-	-	-
		<b>Total</b>	<b>28</b>	<b>6</b>		<b>25</b>	<b>380</b>	<b>520</b>	<b>900</b>

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### B. Tech. ELECTRONICS & COMMUNICATION Engineering

IV Year

II Semester

S. No.	Subject Code	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
			T	P	D		Int.	Ext.	Total
1.	14140801	Digital Image Processing	4	-	-	3	30	70	100
2.	14140802	Electronic Measurements and Instrumentation	4	-	-	3	30	70	100
3.		<b>Elective- III</b>	4	-	-	3	30	70	100
4.		<b>Elective- IV</b>	4	-	-	3	30	70	100
5.	14140841	<b>Project &amp; Seminar</b>	-	-	-	9	60	140	200
		<b>Total</b>	<b>16</b>	<b>9</b>		<b>21</b>	<b>180</b>	<b>420</b>	<b>600</b>

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## **OPEN ELECTIVES:**

- 1) Micro Electronic Mechanical Systems-14143665a
- 2) OOPS through Java- 14145665b
- 3) Mechatronics-14143665c
- 4) Power Electronics-14142665d

### **Elective- I**

1. Telecommunication Switching Systems and Networks-14140765a
2. Network Security And Cryptography -14145765b
3. DSP Processors and Architectures-14140765c
4. Analog IC Design-14140765d

### **Elective- II**

1. Radar Systems-14140766a
2. Digital IC Design-14140766b
3. Speech Processing-14140766c
4. Artificial Neural Network & Fuzzy Logic-14145766d

### **Elective- III**

1. Satellite Communication-14140863a
2. Embedded Systems-14140863b
3. Mixed Signal Design-14140863c
4. RF Circuits Design-14140863d

### **Elective- IV**

1. Wireless Sensors and Networks-14140864a
2. Low Power VLSI Design-14140864b
3. EMI/EMC-14140864c
4. Biomedical Instrumentation-14140864d