

**ANURAG UNIVERSITY**  
**Department of ECE, Program: ECM**  
**R 2023 Curriculum & Syllabus**

**I YEAR I SEMESTER**

**COURSE STRUCTURE**

S.No.	Course Code	Course Title	Hours per week			Credits
			L	T	P	
1	A51001	Mathematics–I	3	1	0	4.0
2	A51002	English	2	0	0	2.0
3	A51003	Engineering Chemistry	3	1	0	4.0
4	A51004	Programming for Problem Solving- I	2	0	0	2.0
5	A51214	Engineering Graphics Lab	0	0	5	2.5
6	A51215	English Language Skills Lab	0	0	2	1.0
7	A51216	Engineering Chemistry Lab	0	0	3	1.5
8	A51217	Programming for Problem Solving-I Lab	0	0	3	1.5
<b>TOTAL</b>			<b>10</b>	<b>02</b>	<b>13</b>	<b>18.5</b>

**I YEAR II SEMESTER**

**COURSE STRUCTURE**

S.No.	Course Code	Course Title	Hours per week			Credits
			L	T	P	
1	A52001	Mathematics–II	3	1	0	4.0
2	A52005	Applied Physics	3	1	0	4.0
3	A52003	Programming for Problem Solving-II	2	0	0	2.0
4	A52007	Basic Electrical Engineering	3	0	0	3.0
5	A52211	Applied Physics Lab	0	0	3	1.5
6	A52212	Programming for Problem Solving – II Lab	0	0	3	1.5

7	A52213	Basic Electrical Engineering Lab	0	0	2	1.0
8	A52214	Engineering Workshop	0	0	3	1.5
9	A52215	English Communication Skills Lab	0	0	2	1.0
<b>TOTAL</b>			<b>11</b>	<b>2</b>	<b>13</b>	<b>19.5</b>

## II YEAR I SEMESTER

6T+ 2L+1HS

S. No	Course Code	Category	Course Title	L	T	P	Credits
1	EC301	BS	Probability and Statistics	3	0	0	3
2	EC302	ES	Electronic Devices & Circuits	3	0	0	3
3	EC303	PC	Digital Circuits	3	1	0	4
4	EC304	BS	Data structures	2	1	0	3
5	EC305	ES	Python Programming	3	0	0	3
6	EC307	ES	Electronic Devices & Circuits Lab	0	0	3	1.5
7	EC308	PC	Data structures Lab	0	0	3	1.5
8	EC309	HS	Soft Skills for Success	0	0	2	1
9	EC310	MC	Environmental Studies	2	0	0	0
<b>Total</b>				<b>16</b>	<b>02</b>	<b>08</b>	<b>20</b>

## II YEAR II SEMESTER

6T+ 3L

S.No	Course Code	Category	Course Title	L	T	P	Credits
1	EC401	PC	Computer Organization	3	0	0	3
2	EC402	PC	Data Base Management systems	3	1	0	4
3	EC403	PC	Signals and systems	3	0	0	3
4	EC404	PC	Electronic Circuit Analysis	2	1	0	3
5	EC405	PC	Java programming	3	0	0	3
6	EC406	PC	Design Analysis and Algorithms	0	0	2	1

7	EC407	PC	Electronic Circuit Analysis lab	0	0	3	1.5
8	EC408	PC	DBMS Lab	0	0	3	1.5
9	EC409	MC	Gender Sensitization	2	0	0	0
<b>Total</b>				<b>16</b>	<b>02</b>	<b>08</b>	<b>20</b>

### III YEAR I SEMESTER

5T+ 3L

S.No	Course Code	Category	Course Title	L	T	P	Credits
1	EC501	PC	Operating Systems	3	0	0	3
2	EC502	PC	Microprocessors and Microcontrollers	3	0	0	3
3	EC503	PC	Data Communications and Computer Networks	3	1	0	4
4	EC504	PC	Integrated circuits and Applications	3	0	0	3
5	EC505	PE	Professional Elective-I	3	0	0	3
6	EC506	PC	Integrated circuits and Applications Lab	0	0	3	1.5
7	EC507	PC	Microprocessors and Microcontrollers Lab	0	0	3	1.5
8	EC508	PC	Design Analysis and Algorithms lab	0	0	2	1
<b>Total</b>				<b>15</b>	<b>01</b>	<b>08</b>	<b>20</b>

### III YEAR II SEMESTER

3T+ 2L+1HS(T)+1HS(L)+OE1

S.No	Course Code	Category	Course Title	L	T	P	Credits
1	EC601	PC	VLSI Design	3	0	0	3
2	EC602	PC	Software Engineering	3	0	0	3
3	EC603	PC	Web Technologies	3	1	0	4
4	EC604	PC	Embedded Systems & IoT	3	0	0	3
5	EC605	OE	Open Elective – I	3	0	0	3
6	EC606	PC	Web Technologies Lab	0	0	3	1.5
7	EC607	PC	Embedded Systems & IoT Lab	0	0	3	1.5

8	EC608	PC	VLSI lab	0	0	3	1
9	EC609	HS	Skills Integrated English Lab	0	0	2	1
<b>Total</b>				<b>15</b>	<b>01</b>	<b>08</b>	<b>21</b>

#### IV YEAR I SEMESTER

6T+2L+1Mini Project

S.No	Course Code	Category	Course Title	L	T	P	Credits
1	EC701	PC	Digital Image Processing	2	1	0	3
2	EC702	PC	Machine Learning	2	1	0	3
3	EC703	PE	<b>Professional Elective –II</b>	3	0	0	3
4	EC704	PE	<b>Professional Elective –III</b>	3	0	0	3
5	EC705	PE	<b>Professional Elective –IV</b>	3	0	0	3
6	EC705	PE	<b>Professional Elective-V</b>	3	0	0	3
7	EC707	PC	Digital image processing Lab	0	0	2	1
8	EC708	PC	Machine Learning Lab	0	0	2	1
9	EC709	PW	Mini Project	0	0	4	2
<b>Total</b>				<b>16</b>	<b>02</b>	<b>08</b>	<b>22</b>

#### IV YEAR II SEMESTER 2 OE+Technical Seminar+Comprehensive Viva+ Project

S. No	Course Code	Category	Course Title	L	T	P	Credits
1	EC801	OE	<b>Open Elective –II</b>	2	1	0	3
2	EC802	OE	<b>Open Elective –III</b>	2	1	0	3
3	EC803		Technical Seminar	0	0	4	2
4	EC804		Comprehensive VIVA	0	0	0	2

5	EC805		Project	0	0	20	10
<b>Total</b>				<b>4</b>	<b>02</b>	<b>24</b>	<b>20</b>

Professional elective I,II,III,IV & V

1. Formal language and automata theory
2. Data Science & Analytics
3. Cloud and distributed Computing
4. Big Data
5. Natural Language Processing
6. Cyber security
7. Pattern Recognition
8. Deep Learning
9. Cryptography and Information Security
10. Data Analytics & Visualization
11. Artificial Intelligence
12. Computer vision
13. Mobile Application & Development
14. Electromagnetic field and transmission line
15. Electronic measurements and instrumentation
16. Linear control system
17. Pulse integrated circuits
18. Analog IC Design
19. Digital Signal Processing
20. FPGA Based System Design
21. Wireless Sensor Networks
22. CAD for VLSI circuits
23. Low Power VLSI Design

Open elective I & II

1. Entrepreneurship Development
2. English for Professionals
3. Project Management
4. Intellectual Property Rights
5. Technical and Business Communication
6. Human Resource Management
7. Product Planning & Strategy
8. Essential & Employability Skills