

DEPARTMENT OF ELECTRONICS & TELECOMMUNICATIONS ENGINEERING

**CURRICULUM OF 2ND TO 4TH YEAR OF THE
UNDERGRADUATE ENGINEERING DEGREE PROGRAMME**

2nd Year 1st Semester

Subject Code	Subject Name	Category	Type	Contact	Credit	Marks
ET/PC/B/T/211	Electromagnetic Theory	PC	Basic		3	100
ET/PC/B/T/212	Circuit Analysis and Synthesis	PC	Basic		4	100
ET/PC/B/T/213	Signals and Systems	PC	Basic		4	100
ET/PC/B/T/214	Digital Logic Circuits	PC	Basic		4	100
ET/PC/B/T/215	Analog Circuits I	PC	Basic		4	100
ET/PC/B/T/216	Mathematics III	PC	Basic		4	100
ET/PC/B/S/211	Circuit Theory Lab	PC	Basic		1.5	100
ET/PC/B/S/212	Digital Circuits Lab	PC	Basic		1.5	100
ET/PC/B/S/213	Analog Circuits Lab	PC	Basic		1.5	100
ET/PC/B/S/214	Semiconductor Materials and Devices Lab	PC	Basic		1.5	100
Total					29	1000

2nd Year 2nd Semester

Subject Code	Subject Name	Category	Type	Contact	Credit	Marks
ET/PC/B/T/221	Analog Circuits II	PC	Basic		3	100
ET/PC/B/T/222	Digital Circuits and Systems	PC	Basic		4	100
ET/PC/B/T/223	Analog Communication Systems	PC	Basic		4	100
ET/PC/B/T/224	Transmission Lines and Waveguides	PC	Basic		4	100
ET/PC/B/T/225	Data Structures and Algorithms	PC	Basic		3	100
ET/PC/B/S/221	Analog Circuits II Lab	PC	Basic		1.5	100
ET/PC/B/S/222	Digital Circuits II Lab	PC	Basic		1.5	100
ET/PC/B/S/223	Analog Communication Lab	PC	Basic		1.5	100
ET/PC/B/S/224	Data Structures Lab	PC	Basic		1.5	100
Total					24	900

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3rd Year 1st Semester

Subject Code	Subject Name	Category	Type	Contact	Credit	Marks
ET/PC/B/T/311	Microprocessors and Microcontrollers	PC	Basic		3	100
ET/PC/B/T/312	Control Engineering	PC	Basic		4	100
ET/PC/B/T/313	Digital Communication Systems	PC	Basic		3	100
ET/PC/B/T/314	Antennas and Propagation	PC	Basic		3	100
ET/PC/B/T/315	Computer Organization and Architecture	PC	Basic		3	100
ET/PC/B/T/316	Analog CMOS Design and Technology	PC	Basic		4	100
ET/PC/B/S/311	Microprocessors and Microcontrollers Lab	PC	Basic		1.5	100
ET/PC/B/S/312	Control Engineering Lab	PC	Basic		1.5	100
ET/PC/B/S/313	Digital Communication Lab	PC	Basic		1.5	100
Total					24.5	900

3rd Year 2nd Semester

Subject Code	Subject Name	Category	Type	Contact	Credit	Marks
ET/PC/B/T/321	Digital Signal Processing	PC	Basic		4	100
ET/PC/B/T/322	Digital Switching and Computer Networks	PC	Basic		4	100
ET/PC/B/T/323	Digital Control Systems	PC	Basic		3	100
ET/PC/H/T/324	Operating System(*)	PC	Honours		3	100
ET/PC/H/T/325	Embedded Systems(*)	PC	Honours		4	100
ET/PC/B/S/321	IC Design Lab	PC	Basic		1.5	100
ET/PC/B/S/322	Digital Signal Processing Lab	PC	Basic		1.5	100
ET/PC/B/S/323	Communication Networks Lab	PC	Basic		1.5	100
ET/PC/B/S/324	Digital Control Lab	PC	Basic		1.5	100
Total					24	900

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4th Year 1st Semester

Subject Code	Subject Name	Category	Type	Contact	Credit	Marks
ET/PC/H/T/411	System Software(*)	PC	Honours		3	100
ET/PC/B/T/412	Microwave Engineering	PC	Basic		4	100
ET/PC/B/T/413	VLSI Design and Algorithms	PC	Basic		3	100
ET/PE/B/T/414	Elective-I	PE	Basic		3	100
ET/PC/B/S/421	Computer Architecture and System Software Lab	PC	Basic		1.5	100
ET/PC/B/S/422	Seminar	PC	Basic		1.5	100
ET/PC/B/S/423	Microwave Lab	PC	Basic		1.5	100
ET/PC/B/S/424	Project	PC	Basic		3	100
Total					20.5	800

4th Year 2nd Semester

Subject Code	Subject Name	Category	Type	Contact	Credit	Marks
ET/PC/H/T/421	Wireless Communication Systems(*)	PC	Honours		3	100
ET/PC/B/T/422	Industrial Management	PC	Basic		4	100
ET/PC/H/T/423	Optical Fiber Communication(*)	PC	Honours		3	100
ET/PE/B/T/425	Elective-II	PE	Basic		3	100
	Open Elective	OE	Basic		3	100
ET/PC/B/S/421	General Viva Voce	PC	Basic		0	0
ET/PC/B/S/422	Project	PC	Basic		4.5	100
Total					20.5	600

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List of Professional Electives (One for Elective – I & Any other One for Elective – II)

Sl. No.	Subjects
1	Audio/Video Electronics and Broadcasting
2	Advanced Mobile Communications
3	Communications Network Management
4	Optical Networks
5	Software Engineering
6	Pattern Analysis and Machine Intelligence
7	Distributed Systems
8	Compiler Design
9	Database Management System
10	Neuro-Fuzzy Control
11	Robotics and Computer Vision
12	Industrial Electronics
13	Biomedical Electronics
14	Optimal and Adaptive Control
15	Advanced Electron Devices
16	Electronic Design and Automation
17	Monolithic Microwave Integrated Circuits
18	Radar and Navigation
19	Principles of Electronic Compatibility
20	Digital Image Processing
21	Brain-Computer Interfacing
22	Advanced Digital Signal Processing

Sl. No.	Subjects
23	Signal Processing Architecture
24	Cognitive intelligence and Robotics
25	Machine Learning
26	Cyber Physical Systems
27	Brain Signal Processing and Analysis
28	Principles of EMI/EMC
29	Fault Diagnosis and Testing in VLSI circuits
30	EMI/EMC and System Testing and Testable Design
31	Modern Devices for VLSI Circuits
32	Power Optimization Techniques in VLSI circuits
33	Low Power VLSI Design and Technology
34	Introduction ARM-7 Architecture
35	Industrial IoT
36	Advanced Computer Network (MANET and WSN)
37	MEMS & NEMS
38	Advanced Algorithms
39	Microelectronics Technology
40	Pattern Recognition
41	Audio and Speech Processing
42	Satellite Communication
43	Cryptography and Network Security
44	Computer and Network Security