Department of Electronics Engineering

NEP courses for the batch admitted from AY 2024-25

Details of Departmental Compulsary (DC) Courses

Departmental Compulsary (DC) Courses					
S. No.	**Course Code**	**Course Name**	**L-T-P**	**Credit**	**Course Type**
1	NECC501	Emerging Communication Systems	3-1-0	4	Theory
2	NECC502	Mathematics for Communication Theory	3-1-0	4	Theory
3	NECC503	Wireless Networks	3-1-0	4	Theory
4	NECC504	Optimization Theory and Techniques	3-1-0	4	Theory
5	NECC505	Optical Fiber Communications	3-1-0	4	Theory
6	NECC506	Optoelectronics and Photonic Devices	3-1-0	4	Theory
7	NECC507	Photonic Integrated Circuits	3-1-0	4	Theory
8	NECC508	Advanced Engineering Electromagnetics	3-1-0	4	Theory
9	NECC509	Microwave Measurements	3-1-0	4	Theory
10	NECC510	Microwave Transmission Lines and Matching Networks	3-1-0	4	Theory
11	NECC511	Analog IC Design	3-1-0	4	Theory
12	NECC512	Digital IC Design	3-1-0	4	Theory
13	NECC513	CAD for VLSI	3-1-0	4	Theory
14	NECC514	MOS Device Physics and Modeling	3-1-0	4	Theory
15	NECC515	5G Communication Systems Lab	0-0-3	1.5	Practical
16	NECC516	Communication Networks Lab	0-0-3	1.5	Practical
17	NECC517	Modeling and Simulation Lab-I	0-0-3	1.5	Practical
18	NECC518	Signal Processing Lab	0-0-3	1.5	Practical
19	NECC519	Optimization and Machine Learning Lab	0-0-3	1.5	Practical
20	NECC520	Modeling and Simulation Lab-II	0-0-3	1.5	Practical
21	NECC521	Optical Communication Lab	0-0-3	1.5	Practical
22	NECC522	Optoelectronic and Photonic Devices Lab	0-0-3	1.5	Practical
23	NECC523	Photonic IC CAD Lab	0-0-3	1.5	Practical
24	NECC524	Photonics Project Lab	0-0-3	1.5	Practical
25	NECC525	RF and CAD Laboratory	0-0-3	1.5	Practical
26	NECC526	Microwave Measurements Lab	0-0-3	1.5	Practical
27	NECC527	HDL-based System Design Lab	0-0-3	1.5	Practical
28	NECC528	VLSI Design and Project Lab-I	0-0-3	1.5	Practical
29	NECC529	Device Simulation Lab	0-0-3	1.5	Practical
30	NECC530	VLSI Design and Project Lab-II	0-0-3	1.5	Practical
31	NECC531	Circuit Simulation Lab	0-0-3	1.5	Practical
32	NECC532	Statistical Signal Processing	3-1-0	4	Theory
33	NECC533	Estimation and Detection Theory	3-1-0	4	Theory
34	NECC534	Advanced Antenna Theory	3-1-0	4	Theory
35	NECC535	Microwave Circuits and Networks	3-1-0	4	Theory
36	NECC536	Current Mode Analog Circuits	3-1-0	4	Theory
37	NECC537	Embedded System Design	3-1-0	4	Theory
38	NECC538	RF Circuits and Networks Simulation Lab	0-0-3	1.5	Practical
39	NECC539	Antenna Simulation Lab	0-0-3	1.5	Practical
40	NECC540	RF Project Lab	0-0-3	1.5	Practical
41	NECC541	Embedded System Design Lab	0-0-3	1.5	Practical
42	NECC595	Research Methodology	3-0-0	3	Theory
43	NECC596	Research Methodology	3-0-0	3	Audit
44	NECC597	Thesis	0-0-0	20	Non-contact
45	NECC598	Thesis	0-0-0	20	Non-contact
46	NECC599	Thesis	0-0-0	20	Audit

Details of Departmental Elective (DE) Courses

Departmental Elective (DE) Courses

S. No.	Course Code	Course Name	L-T-P	Credit	Course Type
1	NECD501	Computer Communication Networks	3-0-0	3	Theory
2	NECD502	Nanophotonics	3-0-0	3	Theory
3	NECD503	Optical Networks	3-0-0	3	Theory
4	NECD504	Microwave Photonics	3-0-0	3	Theory
5	NECD505	Quantum Computation	3-0-0	3	Theory
6	NECD506	Photonic Sensors	3-0-0	3	Theory
7	NECD507	Silicon Photonics	3-0-0	3	Theory
8	NECD508	Test and Verification of VLSI Circuits	3-0-0	3	Theory
9	NECD509	Machine Learning	3-0-0	3	Theory
10	NECD510	Integrated Circuits for Optical Communication	3-0-0	3	Theory
11	NECD511	Principles to Design 5G New Radio (NR) Wireless Standards	3-0-0	3	Theory
12	NECD512	Online Prediction and Learning Algorithms	3-0-0	3	Theory
13	NECD513	Advanced optical communication Technologies for 6G and Beyond	3-0-0	3	Theory
14	NECD514	Advance Material and Device Characterization	3-0-0	3	Theory
15	NECD515	Fundamentals of Photovoltaic Devices	3-0-0	3	Theory
16	NECD516	Advanced CMOS Devices and Technology	3-0-0	3	Theory
17	NECD517	Advanced Microwave Measurement and Instrument	3-0-0	3	Theory
18	NECD518	Advanced Solid State Devices	3-0-0	3	Theory
19	NECD519	ASIC Design	3-0-0	3	Theory
20	NECD520	DSP Integrated Circuits	3-0-0	3	Theory
21	NECD521	Electromagnetic Interference and Compatibility	3-0-0	3	Theory
22	NECD522	Fundamentals of Nanoelectronic Devices	3-0-0	3	Theory
23	NECD523	Introduction to Quantum Communication	3-0-0	3	Theory
24	NECD524	Low Power VLSI	3-0-0	3	Theory
25	NECD525	Metamaterial and CRLH Transmission Lines	3-0-0	3	Theory
26	NECD526	MIC and MMIC	3-0-0	3	Theory
27	NECD527	Microwave Imaging	3-0-0	3	Theory
28	NECD528	Microwave Solid State Devices	3-0-0	3	Theory
29	NECD529	Mixed Signal VLSI Design	3-0-0	3	Theory
30	NECD530	Mobile Communication	3-0-0	3	Theory
31	NECD531	Nanoelectronics	3-0-0	3	Theory
32	NECD532	Network On-Chip	3-0-0	3	Theory
33	NECD533	Nonlinear Optics	3-0-0	3	Theory
34	NECD534	Numerical Techniques in Electromagnetics	3-0-0	3	Theory
35	NECD535	Optical signal processing	3-0-0	3	Theory
36	NECD536	Phased Array Antennas	3-0-0	3	Theory
37	NECD537	Radar Engineering	3-0-0	3	Theory
38	NECD538	Radar Signal Processing	3-0-0	3	Theory
39	NECD539	Radio Frequency Integrated Circuits	3-0-0	3	Theory
40	NECD540	RF and Microwave MEMS	3-0-0	3	Theory
41	NECD541	RF CMOS Transceiver Design	3-0-0	3	Theory
42	NECD542	RF Power Amplifier and Receiver Design	3-0-0	3	Theory
43	NECD543	RFID	3-0-0	3	Theory
44	NECD544	Satellite Communication System	3-0-0	3	Theory
45	NECD545	Smart Antennas	3-0-0	3	Theory
46	NECD546	VLSI Algorithms	3-0-0	3	Theory
47	NECD547	VLSI Architecture for Image and Video Processing	3-0-0	3	Theory
48	NECD548	VLSI for Wireless Communication	3-0-0	3	Theory
49	NECD549	VLSI Signal Processing	3-0-0	3	Theory

50	NECD550	VLSI Technology	3-0-0	3	Theory
51	NECD551	Wireless Communication Systems	3-0-0	3	Theory
52	NECD552	Advanced Materials for High Frequency Applications	3-0-0	3	Theory
53	NECD553	Design and Analysis of Algorithms	3-0-0	3	Theory
54	NECD554	Internet of Things	3-0-0	3	Theory
55	NECD555	Microwave Remote Sensing	3-0-0	3	Theory
56	NECD556	Neuromorphic Engineering	3-0-0	3	Theory
57	NECD557	On-Chip Interconnects	3-0-0	3	Theory
58	NECD558	Real Time Systems	3-0-0	3	Theory
59	NECD559	RF Sensors	3-0-0	3	Theory
60	NECD560	Telemetry and Data Transmission	3-0-0	3	Theory
61	NECD561	Wireless Sensor Networks	3-0-0	3	Theory