



## DEPARTMENT OF ELECTRICAL ENGINEERING

### LIST OF DOMAIN ELECTIVE COURSES

S.No.	Course Code	Course Title	Credit Hours
<b><i>Elective courses (for Power Systems and Control Specialization)</i></b>			
1.	EE-610	Renewable Energy Systems	3
2.	EE-611	Power Electronics Devices and Converters	3
3.	EE-612	Modelling and Simulation of Converters	3
4.	EE-613	Power Quality	3
5.	EE-614	Advanced Control Systems	3
6.	EE-615	Advanced High Voltage Engineering	3
7.	EE-616	Modelling and Simulation of Electrical Machines	3
8.	EE-617	Special Electrical Machines	3
9.	EE-618	Smart Grid Systems Operation	3
10.	EE-619	Power System Reliability	3
11.	EE-620	Power System Distribution	3
12.	EE-621	Insulation Coordination in Power Systems	3
13.	EE-622	Photovoltaic Energy and its Applications	3
14.	EE-623	Advanced Electrical Machine Design	3
15.	EE-624	Power Generation Economics	3
16.	EE-625	Power System Restructuring	3
17.	EE-626	Condition Monitoring Techniques	3
18.	EE-627	Energy Management	3
19.	EE-628	Digital Control System	3
20.	EE-629	Advanced Power Electronics	3
21.	EE-630	Distributed Generation	3
22.	EE-631	Advanced Power System Transmission	3
23.	EE-632	Non - Linear Control Systems	3
24.	EE-633	Advanced Power System Protection	3

25.	EE-634	Power System Modelling and Analysis	3
26.	EE-660	Linear Control Systems	3
27.	EE-670	Research Methodology	3
28.	EE-671	Simulation and Modelling	3
29.	EE-810	Advanced Power System Operation and Control	3
30.	EE-811	Advanced Process Control	3
31.	EE-812	Advanced Power System Stability	3
32.	EE-813	Optimization and Economics of Integration Power Systems	3
33.	EE-814	Control of Electric Machine Drives	3
34.	EE-815	Control of Power Electronic Converters	3
35.	EE-816	Control of DC Machines and Drives	3
36.	EE-817	Control of AC Machines and Drives	3
37.	EE-818	Dynamics and Control of Integrated Power System	3
38.	EE-899	Special Advanced Topics related to Electrical Engineering	3
<b><i>Elective courses (for Communication and Electronics Specialization)</i></b>			
1.	EE-604	Advanced Electronics	3
2.	EE-632	Non - Linear Control Systems	3
3.	EE-650	Digital Image Processing	3
4.	EE-651	Advanced Digital Communication	3
5.	EE-652	Digital Integrated Circuit Design	3
6.	EE-653	Antenna Theory and Design	3
7.	EE-654	Advanced Digital Signal Processing	3
8.	EE-655	Cellular and Mobile Communications	3
9.	EE-656	Microwave Devices	3
10.	EE-657	Secure Communications	3
11.	EE-658	Solid State Electronics	3
12.	EE-659	Photonic Devices	3
13.	EE-660	Linear Control Systems	3
14.	EE-661	Advanced Computer Networks	3

15.	EE-662	Speech Processing	3
16.	EE-663	Advanced Wireless Communication	3
17.	EE-664	Semiconductor Device Physics	3
18.	EE-665	Data Communication and Security	3
19.	EE-666	Advanced Communication Systems	3
20.	EE-667	Smart Antennas	3
21.	EE-668	Advanced Microwave Engineering	3
22.	EE-669	Advanced Satellite Communication	3
23.	EE-670	Research Methodology	3
24.	EE-671	Simulation and Modelling	3
25.	EE-819	Design and Analysis of Algorithms	3
26.	EE-820	Real Time Digital Signal Processing	3
27.	EE-821	Spatial Array Processing	3
28.	EE-822	Advanced Information & Coding Theory	3
29.	EE-823	Microwave Filters	3
30.	EE-824	Monolithic Microwave Integrated Circuit (MMIC) Technology and Design	3
31.	EE-825	Metamaterials and Nano photonics	3
32.	EE-826	Mobile Ad Hoc Networks	3
33.	EE-827	Advanced Intelligent Network	3
34.	EE-828	Wireless Sensor Networks	3
35.	EE-829	Internet of Things	3
36.	EE-830	Semiconductor Processing	3
37.	EE-831	Quantum Mechanics	3
38.	EE-832	RF Circuits Design	3
39.	EE-833	Free Space Optical Communications	3
40.	EE-834	Advanced Digital System Design	3
41.	EE-835	Adaptive Filter Theory	3
42.	EE-836	Special Advanced Topics related to Electrical Engineering	3