

MS (Electronic Engineering)

Distribution of Courses and Credit Hours

Required Courses	Courses	Total Credit Hours
Core Courses	12 Credit Hours	12
Elective Courses	Up to 12 Credit Hours	12
Thesis		6
Compulsory courses in Lieu of thesis work	2 elective courses (each 3 credit hours) can be taking in Lieu of the thesis	
Total Credit Hours		30

Core Courses

Sr. #	Course Title	Credit Hours
1	Mathematical Methods for Engineers and Scientists	03
2	Optimization Theory	03
3	Linear System Theory	03
4	Engineering Research Methodology	

List of elective courses for Electronic System Engineering

Sr. #	Course Code	Course Title	Credit Hours
1	EE-ESE-671	Semiconductor Devices and Technology	03
2	EE-ESE-672	Introduction to MEMS Design and Micromachining	03
3	EE-ESE-673	Nanotechnology	03
4	EE-ESE-674	Microprocessor Based System Design	03
5	EE-ESE-675	Optical Engineering	03
6	EE-ESE-676	Instrumentations and Systems	03
7	EE-ESE-677	Linear Integrated Circuits	03
8	EE-CSP-678	Robotics and Industrial Automation	03
9	EE-ESE-771	Advanced VLSI	03
10	EE-ESE-772	Advanced FPGA Systems	03
11	EE-ESE-773	Advanced Digital Control	03
12	EE-ESE-774	Modelling and Simulations of Dynamic Systems	03

List of elective courses for Power Electronics

Sr. #	Course Code	Course Title	Credit Hours
1	EE-PE-671	Power Electronic Devices	03
2	EE-PE-672	AC-DC and DC-AC Converters	03
3	EE-PE-673	Switch Mode Converter Analysis & Design	03
4	EE-PE-674	Power Quality and Management	03
5	EE-PE-771	Control of DC Machine Drives	03
6	EE-PE-772	Control of AC Machine Drives	03
7	EE-PE-773	Control for Renewable Energy Systems	03
8	EE-PE-774	Advance Power Electronics	03

List of elective courses for Communication & Signal Processing

Sr. #	Course Code	Course Title	Credit Hours
1	EE-CSP-671	Stochastic Processes	03
2	EE-CSP-672	Electromagnetic Field Theory	03
3	EE-CSP-673	Wave Propagation and Antennas	03
4	EE-CSP-674	Wireless Sensor Networks	03
5	EE-CSP-675	Wireless Communication Channel Modelling	03
6	EE-CSP-676	Software Defined Radio Networks	03
7	EE-CSP-677	LTE Mobile Communication	03
8	EE-CSP-678	Information and Coding Theory	03
9	EE-CSP-771	Advanced wireless Communications	03
10	EE-CSP-772	Advanced Optical Communications	03
11	EE-CSP-773	Advanced Digital Signal Processing	03
12	EE-CSP-774	Advanced Digital Communication	03

1.	EE-799	MS Thesis	03
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