



NATIONAL INSTITUTE OF TECHNOLOGY SIKKIM

Ravangla Campus
Barfung Block, Ravangla Sub Division, South Sikkim-737139

Department of Electrical and Electronics Engineering Curriculum for B.Tech. 2nd Year

Semester	Subject Code	L-T-P	Subject Name	Credit
3rd Semester	MA13101	3-1-0	Mathematics - III	4
	EE13101	3-0-0	Signals and Systems	3
	EE13102	3-0-0	Circuits and Networks	3
	EE13103	3-0-0	Electrical and Electronics Measurements	3
	EE13104	3-0-0	Basic Electronic Circuits	3
	EE13201	0-0-3	Basic Electrical Engineering Laboratory	2
	EE13202	0-0-3	Electronics Laboratory - I	2
	EE13203	0-0-3	Measurements Laboratory	2
	Total Credits			
4th Semester	MA14101	3-1-0	Mathematics -IV	4
	EE14101	3-0-0	Digital Electronics	3
	EE14102	3-0-0	Applied Electromagnetics	3
	EE14103	3-0-0	Electrical Machines – I	3
	EE14104	3-0-0	Analog Electronic Circuits and	3
	EE14105	3-0-0	Power Plant Engineering	3
	EE14201	0-0-3	Electronics Laboratory - II	2
	EE14202	0-0-3	Electrical Machines Laboratory – I	2
	Total Credits			



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Department of Electrical and Electronics Engineering Curriculum for B.Tech. 3rd Year

Semester	Subject Code	L-T-P	Subject Name	Credit
5 th Semester	EE15101	3-0-0	Microprocessors and Microcontrollers	3
	EE15102	3-0-0	Control Systems - I	3
	EE15103	3-0-0	Electrical Machines - II	3
	EE15104	3-0-0	Power Systems - I	3
		3-0-0	Elective – 1	3
		3-0-0	Elective – 2	3
	EE15201	0-0-3	Embedded Systems Laboratory	2
	EE15202	0-0-3	Electrical Machines Laboratory - II	2
	Total Credits			22
6 th Semester	EE16101	3-0-0	Digital Signal Processing	3
	EE16102	3-0-0	Power Systems - II	3
	EE16103	3-0-0	Power Electronics	3
		3-0-0	Elective - 3	3
		3-0-0	Elective - 4	3
	EE16201	0-0-3	Power Systems Laboratory	2
	EE16202	0-0-3	Mini Project	2
	HS16101	2-0-0	Professional Communication	2
	Total Credits			21



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Department of Electrical and Electronics Engineering Curriculum for B.Tech. 4th Year

Semester	Subject Code	L-T-P	Subject Name	Credit
7 th Semester	HS17101	2-0-0	Principles of Management and Entrepreneurship	2
	EE17101	3-0-0	Control Systems - II	3
	EE17102	3-0-0	Electric Drives	3
		3-0-0	Elective – 5	3
		3-0-0	Elective – 6	3
	EE17201	0-0-3	Power Electronics and Drives Laboratory	2
	EE17202	0-0-3	Control Systems Laboratory	2
	EE17203	0-0-3	Project	2
	Total Credits			
8 th Semester	HS18101	2-0-0	Engineering Economics	2
	EE18101	3-0-0	Instrumentation Systems	3
		3-0-0	Elective - 7	3
		3-0-0	Elective - 8	3
	EE18401	0-0-2	Seminar	2
	EE18201	0-0-10	Project	5
	EE18402		Departmental Comprehensive Viva	2
	Total Credits			



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Department of Electrical and Electronics Engineering Electives for B.Tech. 3rd Year

Semester	Subject Code	L-T-P	Subject Name	Credit
5th Semester (Elective - 1 and Elective - 2)	EE15301	3-0-0	Electrical Engineering Materials	3
	EE15302	3-0-0	Network Synthesis	3
	EE15303	3-0-0	Optimization Techniques and Algorithms	3
	EE15304	3-0-0	Electric Power Utilization	3
	EE15305	3-0-0	Dynamic Analysis of Electrical Machines	3
	EE15306	3-0-0	Linear System Theory	3
	EE15307	3-0-0	Renewable Energy Systems and Applications	3
	EE15308	3-0-0	High Voltage Direct Current Transmission	3
	EE15309	3-0-0	Applications of Analog Integrated Circuits	3
6th Semester (Elective - 3 and Elective - 4)	EE16301	3-0-0	Digital Control Systems	3
	EE16302	3-0-0	Fuzzy Logic Systems	3
	EE16303	3-0-0	Biomedical Instrumentation	3
	EE16304	3-0-0	Illumination Engineering	3
	EE16305	3-0-0	Analog Filters	3
	EE16306	3-0-0	Power Semiconductor Devices	3
	EE16307	3-0-0	Advanced Processor Architecture and System Organization	3
	EE16308	3-0-0	LT & HT Distribution Systems	3
	EE16309	3-0-0	Electrical System Design for Buildings	3



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Electives for B.Tech. 4th Year

Semester	Subject Code	L-T-P	Subject Name	Credit
7th Semester (Elective - 5 and Elective - 6)	EE17301	3-0-0	Artificial Neural Networks and Genetic Algorithms	3
	EE17302	3-0-0	Data Acquisition and Signal Conditioning	3
	EE17303	3-0-0	Computer Control of Industrial Processes	3
	EE17304	3-0-0	Power System Operation and Control	3
	EE17305	3-0-0	Analog MOS Circuits	3
	EE17306	3-0-0	Switched-mode Power Supplies	3
	EE17307	3-0-0	Bio-Signal Processing	3
	EE17308	3-0-0	Power System Reliability and Deregulation	3
	EE17309	3-0-0	Control & Guidance Engineering	3
	EE17310	3-0-0	High Voltage Engineering	3
	EE17311	3-0-0	Switchgear and Protection	3
8th Semester (Elective - 7 and Elective - 8)	EE18301	3-0-0	Advanced Digital Signal Processing	3
	EE18302	3-0-0	Static VAR Compensation and Harmonic Filtering	3
	EE18303	3-0-0	Optimal and Adaptive Control	3
	EE18304	3-0-0	Power System Stability and Control	3
	EE18305	3-0-0	Flexible AC Transmission	3
	EE18306	3-0-0	Non-linear System Analysis	3
	EE18307	3-0-0	Energy Auditing, Conservation and Management	3
	EE18308	3-0-0	Digital Protective Relaying	3



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	EE18309	3-0-0	Advanced DC – AC Power Conversion	3
	EE18310	3-0-0	System Identification and Parameter Estimation	3
	EE18311	3-0-0	Special Machines and Linear Machines	3
	EE18312	3-0-0	Power Quality	3