

Tribhuvan University
Institute of Engineering, Lalitpur
Curriculum Structure 2023
MSc in Power Electronics and Drives

Year : I

Part I

Teaching Schedule				Examination Scheme			Total	Remark
SN	Course Code	Course Title	Credit	Assessment Marks	Final Exam			
					Duration Hours	Marks		
1	EE 801-C03	Optimization Techniques	4	40	3	60	100	Core
2	EE 803-C01	Analysis of Electrical Machines	4	40	3	60	100	Core
3	EE 802-C01	Advanced Power Electronics	4	40	3	60	100	Core
4	EE803-C02	Advanced Power System Analysis	4	40	3	60	100	Core
Total			16	160		240	400	

Year : I

Part II

Teaching Schedule				Examination Scheme			Total	Remark
S. N.	Course Code	Course Title	Credit	Assessment Marks	Final Exam			
					Duration Hours	Marks		
1	EE 853-C01	Modelling and Control of Renewable Energy	4	40	3	60	100	Core
2	EE 853-C02	Modelling and Control of Electric Drives	4	40	3	60	100	Core
3		Elective-I	4	40	3	60	100	
4		Elective-II	4	40	3	60	100	
Total			16	160		240	400	

Year : II

Part I

Teaching Schedule				Examination Scheme			Total	Remark
S. N.	Course Code	Course Title	Credit	Assessment Marks	Final Exam			
					Duration Hours	Marks		
1		Elective -III	4	40	3	60	100	
2		Elective -IV	4	40	3	60	100	
3	EE 903-C01	Project	4	100	-	-	100	
Total			12	180		120	300	

Year: II

Part II

Teaching Schedule				Examination Scheme			Total	Remark
S. N.	Course Code	Course Title	Credit	Assessment Marks	Final Exam			
					Duration Hours	Marks		
1	EE953-C01	Thesis	16	100			100	

ELECTIVE COURSES

Teaching Schedule				Examination Scheme			Total	Remarks
S. N.	Course Code	Course title	Credit	Assessment Marks	Final			
					Duration Hours	Marks		
1	EE 853-E21	Electro-Magnetic Field Computation and Modelling	4	40	3	60	100	
2	EE 853-E22	Distribution Generation Technology and Microgrid	4	40	3	60	100	
3	EE 853-E23	Advanced Power Semiconductor Devices	4	40	3	60	100	
4	EE 853-E24	Special Electrical Machines	4	40	3	60	100	
5	EE 853-E25	Solid State Power Controllers	4	40	3	60	100	
6	EE 853-E26	Reliability in Power Electronics and Drives	4	40	3	60	100	
7	EE 903-E31	Electric Vehicle and Power Management	4	40	3	60	100	
8	EE 903-E32	Microcontroller and FPGA-Based Power Electronics Controller	4	40	3	60	100	
9	EE 903-E33	High Voltage DC System	4	40	3	60	100	
10	EE 903-E34	Non-Linear Dynamics for Power Electronic Circuits	4	40	3	60	100	
11	EE 903-E35	Industrial Automation	4	40	3	60	100	
12	EE 903-E36	Artificial Intelligence (AI)	4	40	3	60	100	
13	EE 903-E37	Railway Power Supply System and Traction	4	40	3	60	100	
14	EE 903-E38	Power Quality	4	40	3	60	100	