

Maulana Azad National Institute of Technology, Bhopal - 462003

DEPARTMENT OF ELECTRICAL ENGINEERING

SCHEME FOR B. TECH. (Electrical Engineering)

(2021 admitted batch onwards)

First Year Credits (Cumulative) 45

THIRD SEMESTER:

Course Code	Course Name	Scheme of Studies Periods per week			Credits
		L	T	P	
MTH 231	Mathematics-3	3	1	-	4
ME 252	Fundamentals of Design	2	1	-	3
EE211	EM Fields and Materials	3	-	-	3
EE212	EMEC-I	3	-	-	3
EE213	Network Analysis	3	-	-	3
EE 214	Measurement and Instrumentation	3	-	-	3
EE215	EMEC-I Lab	-	-	2	1
EE216	Network Lab	-	-	2	1
EE217	Instrumentation Lab	-	-	2	1
EE218	Professional Practices	-	2	-	2
Total Hours =27		17	4	6	24
Total Credits (Cumulative)					69
Additional Subject: - National Cadet Corps (NCC)					
NCC 251	National Cadet Corps III	1	5	1	7
Total Credits (Cumulative)					11

FOURTH SEMESTER:

Course Code	Course Name	Scheme of Studies Periods per week			Credits
		L	T	P	
MTH 241	Mathematics-4	3	-	-	3
HUM 251	Fundamentals of Entrepreneurship	3	-	-	3
EE 221	Power System	3	1	-	4
EE 222	EMEC-II	3	-	-	3
EE 223	Electronic Devices & Circuits	3	-	-	3
EE 224	Generation of Electrical Power	3	-	-	3
EE 225	EMEC-II Lab	-	-	2	1
EE 226	Electronics Lab	-	-	2	1
EE 227	Project Based Lab-1	-	-	2	1
Total Hours =25		18	1	6	22
Total Credits (Cumulative)					91
Additional Subject: - National Cadet Corps (NCC)					
NCC 252	National Cadet Corps IV	2	-	1	3
Total Credits (Cumulative)					14

FIFTH SEMESTER:

Course Code	Course Name	Scheme of Studies Periods per week			Credits
		L	T	P	
CS352	Data Structures and Algorithm	3	1	-	4
EE 311	Linear Control system	3	-	-	3
EE312	Power Electronics	3	-	-	3
EE313	Machine Design	3	1	-	4
EE314	Utilization of Electrical Energy	3	-	-	3
	Programme Elective-1 (A)	3	-	-	3
EE 315	Control System Lab	-	-	2	1
EE 316	Power Electronics Lab	-	-	2	1
EE 317	Design and Simulation Lab	-	-	2	1
EE 318	Internship/Industrial Training	-	-	2	1
Total Hours =28		18	2	8	24
Total Credits (Cumulative)					115
Additional Subject: - National Cadet Corps (NCC)					
NCC 351	National Cadet Corps V	1	5	1	7
Total Credits (Cumulative)					21

SIXTH SEMESTER:

Course Code	Course Name	Scheme of Studies Periods per week			Credits
		L	T	P	
ME351	Engineering Management	3	-	-	3
EE321	Power System Protection and fault Analysis	3	1	-	4
EE322	Electrical Drives	3	-	-	3
EE323	Modern Control System	3	-	-	3
	Programme Elective-2 (A)	3	-	-	3
EE 324	Power System Protection Lab	-	-	2	1
EE 325	Drives Lab	-	-	2	1
EE 326	Modern Control Lab	-	-	2	1
EE 327	Project-1	-	-	4	2
Total Hours =26		15	1	10	21
Total Credits (Cumulative)					136
Additional Subject: - National Cadet Corps (NCC)					
NCC 352	National Cadet Corps VI	2	-	1	3
Total Credits (Cumulative)					24

SEVENTH SEMESTER:

Course Code	Course Name	Scheme of Studies Periods per week			Credits
		L	T	P	
HUM451	Engineering Economics and IPR	3	-	-	3
EE411	EMEC-III	3	-	-	3
	Programme Elective-3 (A)	3	-	-	3
	Programme Elective-4 (A)	3	-	-	3
	Open Elective-1 (C)	3	-	-	3
EE412	EMEC-III Lab	-	-	2	1
EE413	Project Based Lab-2	-	-	4	2
EE414	Industrial/ Field Training	-	-	2	1
Total Hours =23		15	-	8	19
Total Credits (Cumulative)					155

EIGHTH SEMESTER:

Course Code	Course Name	Scheme of Studies Periods per week			Credits
		L	T	P	
	Programme Elective-5 (A)	3	-	-	3
	Programme Elective-6 (A)	3	-	-	3
EE 421 / EE 422	Project-2 / Internship	-	-	16	8
EE 423	General Proficiency	-	-	-	1
Total Hours =22		6	-	16	15
Total Credits (Cumulative)					170

LIST OF PROGRAMME ELECTIVES(GROUP A)

For Third Year:

EE 351 EHV AC & DC EE 352 Microprocessor and Microcontrollers EE 353 Digital Electronics EE 354 AI Techniques EE 355 Power Quality EE 356 Electronic Instrumentation

For Fourth Year:

EE 451 DSP and Its Applications EE 452 Power System Deregulation EE 453 Smart Grids EE 454 Reactive Power Control EE 455 Energy Management EE 456 Electrical Vehicle Technology EE 457 Integrated Energy System EE 458 Power System Restructuring, Economics and Power Markets EE 459 Solar PV Technology and Applications EE 460 System Engineering EE 461 IoT in Energy and Industry EE 462 Power System Reliability EE 463 Application of Power Electronics to Power System EE 464 Industrial Power System Design and Analysis. EE 465 Industrial Electronics EE 466 Power System Stability & Control
