



NATIONAL INSTITUTE OF TECHNOLOGY MIZORAM

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

B.TECH COURSE STRUCTURE & SYLLABUS

SEMESTERWISE CREDIT DISTRIBUTION:

SEMESTER	1 ST SEM	2 ND SEM	3 RD SEM	4 TH SEM	5 TH SEM	6 TH SEM	7 TH SEM	8 TH SEM
CREDIT	38	40	47	41	42	41	39	38
TOTAL CREDIT=326								

**National Institute of Technology Mizoram
(Deptt. of Electrical and Electronics Engineering)**

Course Structure for B.Tech Programme

SEMESTER-III

Sl No	Course Code	Course Title	Category	L-T-P	Credit
1.	EEL 1301	Signals, Systems and Networks	DC	3-1-0	8
2.	MAL1301	Mathematical Method	DC	3-0-0	6
3.	EEL 1302	Electromagnetic Field Theory	DC	3-0-0	6
4.	ECL1301	Semiconductor Devices	DC	3-0-0	6
5.	CSL1301	Data Structure	DC	3-0-0	6
6.	ECL1302	Digital Logic Design	DC	3-0-0	6
7.	EEP 1301	Circuit and Network Lab	DC	0-0-3	3
8.	ECP1302	Digital Logic Design Lab	DC	0-0-3	3
9.	CSP1301	Programming and Data Structure Lab	DC	0-0-3	3
		TOTAL		18-1-9	47

SEMESTER-IV

Sl No	Course Code	Course Title	Category	L-T-P	Credit
1.	EEL1401	Electrical Machines-I	DC	3-1-0	8
2.	EEL1402	Electrical and Electronics Measurement	DC	3-0-0	6
3.	ECL1401	Analog Circuit	DC	3-0-0	6
4.	ECL1405	Communication Systems	DC	3-0-0	6
5.	MAL1401	Numerical Methods and Probability Theory	DC	3-0-0	6
6.	EEP1401	Electrical Machines-I Lab	DC	0-0-3	3
7.	EEP1402	Electrical and Electronics Measurement Lab	DC	0-0-3	3
8.	ECP1401	Analog Circuit Lab	DC	0-0-3	3
		TOTAL		15-1-9	41

SEMESTER-V

Sl No	Course Code	Course Title	Category	L-T-P	Credit
1.	EEL1501	Electrical Machines-II	DC	3-0-0	6
2.	EEL1502	Power Systems-I	DC	3-0-0	6
3.	EEL1503	Control Systems-I	DC	3-0-0	6
4.	ECL1504	Microprocessor and Microcontroller	DC	3-0-0	6
5.	ECL 1503	Introduction To VLSI Design	DC	3-0-0	6
6.	EEP1501	Electrical Machines-II Lab	DC	0-0-3	3
7.	EEP1502	Power Systems-I Lab	DC	0-0-3	3
8.	EEL1503	Control Systems –I Lab	DC	0-0-3	3
9.	ECP1502	Microprocessor and Microcontroller Lab	DC	0-0-3	3
		TOTAL		12-0-12	42

SEMESTER-VI

Sl No	Course Code	Course Title	Category	L-T-P	Credit
1.	EEL1601	Power Systems-II	DC	3-1-0	8
2.	EEL1602	Control Systems-II	DC	3-0-0	6
3.	EEL1603	Power Electronics	DC	3-0-0	6
4.	HUL1601	Humanities	DC	3-0-0	6
5.	ECL1601	Digital Signal Processing	DC	3-0-0	6
6.	EEP1601	Power Systems-II Lab	DC	0-0-3	3
7.	EEP1602	Control Systems-II Lab	DC	0-0-3	3
8.	EEP1603	Power Electronics Lab	DC	0-0-3	3
		TOTAL		15-1-9	41

SEMESTER-VII

Sl No	Course Code	Course Title	Category	L-T-P	Credit
1.	EEL1701	Electrical Drives	DC	3-0-0	6
2.	EEL 1702	Switchgear and Protection	DC	3-0-0	6
3.	EEL1703	Instrumentation	DC	3-0-0	6
4	EEL1704	Power Plant Engineering	DC	3-0-0	6
4.	EEL1705/ ECL1705	Elective-I	DE	3-0-0	6
6.	EEP1701	Electrical Drives Lab	DC	0-0-3	3
7.	EEP1703	Instrumentation Lab	DC	0-0-3	3
8.	EED1704	Project Phase-1	DC		3
		TOTAL		15-0-6	39

SEMESTER-VIII

Sl No	Course Code	Course Title	Category	L-T-P	Credit
1.	CHL1802	Environmental Science	DC	3-0-0	6
2.	EEL1802	Electrical Energy Utilization and Audit	DC	3-0-0	6
3.	EEL1803/ ECL1803	Elective-II	DE	3-0-0	6
4.	EEL1804	Open Elective	OE	3-0-0	6
5.	EEV1802	Seminar	DC	0-0-2	2
6.	EEG1803	Grand VIVA	DC		4
7.	EED1804	Final Project	DC		8
		TOTAL		12-0-2	38

List of Electives

Sl. NO	Course Title	L-T-P	Credit
1	High Voltage Engineering	3-0-0	6
2	Computer Aided Power Systems Analysis	3-0-0	6
3	Flexible AC Transmission System	3-0-0	6
4	Digital Control Systems	3-0-0	6
5	Advance Power Electronics	3-0-0	6
6	Wireless Communication	3-0-0	6
7	High Voltage DC	3-0-0	6
8	Digital Image Processing	3-0-0	6
9	Electrical Machine Design	3-0-0	6
10	Illumination Engineering	3-0-0	6
11.	Smart Grid	3-0-0	6
12.	Low Power VLSI Design	3-0-0	6
13.	Non-Conventional Energy Source	3-0-0	6

List of open Electives

Sl. NO	Course Title	L-T-P	Credit
1	Photovoltaic Cells	3-0-0	6
2	Neural Network	3-0-0	6
3	Optimization Techniques	3-0-0	6
4	Soft Computing	3-0-0	6
5	Nano Electronics	3-0-0	6
6	MEMS	3-0-0	6