



TECHNO INDIA UNIVERSITY
WEST BENGAL

**COURSE CURRICULUM
FOR 4 YEARS B. TECH IN ELECTRICAL
ENGINEERING (EE)**



DEPARTMENT OF ELECTRICAL ENGINEERING

Techno India University, West Bengal

EM-4, EM Block, Sector V, Bidhannagar,

Kolkata -700091, West Bengal



TECHNO INDIA UNIVERSITY

WEST BENGAL

CURRICULUM

**1st Semester**

Sl. No.	Course Code	Course Title	L	T	P	C
Theory						
1	TIU-ES-UCS-T11101	INTRODUCTION TO PROGRAMMING	3	0	0	3
2	TIU-BS-UMA-T11101	MATHEMATICS I	3	1	0	4
3	TIU-BS-UCH-T11101	CHEMISTRY	3	1	0	4
Practical						
4	TIU-ES-UCS-L11191	BASIC COMPUTING LAB	0	0	2	1
5	TIU-ES-UCS-L11101	INTRODUCTION TO PROGRAMMING LABORATORY	0	0	3	1.5
6	TIU-BS-UCH-L11101	CHEMISTRY LAB	0	0	3	1.5
7	TIU-ES-UME-L11192	WORKSHOP PRACTICE	0	0	3	1.5
Sessional						
8	TIU-HSM-UEN-S11191	CAREER ADVANCEMENT & SKILL DEVELOPMENT – I COMMUNICATION SKILL	2	0	0	2
9	TIU-HSM-UES-S11191	ENTREPRENEURSHIP SKILL DEVELOPMENT	0	0	2	1
Total Credits						19.5

**2nd Semester**

Sl. No.	Course Code	Course Title	L	T	P	C
Theory						
1	TIU-ES-UEE-T12101	BASIC ELECTRICAL AND ELECTRONICS ENGINEERING	4	0	0	4
2	TIU-ES-UCS-T12101	PROBLEM SOLVING USING DATA STRUCTURE	3	0	0	3
3	TIU-BS-UMA-T12101B	MATHEMATICS II B	4	0	0	4
4	TIU-BS-UPH-T12101	PHYSICS	4	0	0	4
5	TIU-ES-UME-T12101	ENGINEERING MECHANICS	3	0	0	3
Practical						
6	TIU-ES-UCS-L12101	PROBLEM SOLVING USING DATA STRUCTURES LAB	0	0	3	1.5
7	TIU-ES-UEE-L12101	BASIC ELECTRICAL AND ELECTRONICS ENGINEERING LAB AND SIMULATION	0	0	3	1.5
8	TIU-ES-UME-L12191	ENGINEERING DRAWING AND GRAPHICS	0	0	3	1.5
9	TIU-BS-UPH-L12101	PHYSICS LAB	0	0	3	1.5
Sessional						
10	TIU-HSM-UEN-S12191	CAREER ADVANCEMENT & SKILL DEVELOPMENT – II COMMUNICATION SKILL	0	0	2	1
11	TIU-HSM-UES-S12191	ENTREPRENEURSHIP SKILL DEVELOPMENT	0	0	2	1
Total Credits						26

**3rd Semester**

Sl. No.	Course Code	Course Name	Contact Periods Per Week			Credits
			L	T	P	
Theory						
1	TIU-PC-UEE-T21101	Electromagnetic Field Theory	3	1	0	4
2	TIU-PC-UEE-T21102	Electrical Circuit Theory	3	1	0	4
3	TIU-PC-UEE-T21103	Analog Electronics	3	0	0	3
4	TIU-BS-UMA-T21102	Mathematics-III	3	1	0	4
5	TIU-MC-UOG-T21101	Environmental Science (EVS)	2	0	0	2
Practical						
6	TIU-PC-UEE-L21103	Analog Electronics Lab	0	0	3	1.5
7	TIU-PC-UEE-L21102	Electrical Circuit Theory Lab	0	0	3	1.5
8	TIU-BS-UMA-L21102	Mathematics –III Lab (Numerical Methods)	0	0	3	1.5
Sessional						
9	*	Career Advancement And Skill Development	0	0	2	1
10	TIU-HSM-UES-S21191	Entrepreneurship Skill Development	0	0	2	1
Total Credits						23.5

***CASD Bucket for 3rd Semester**

1	TIU-CASD-UEE-S21101A	Fundamentals of AUTOCAD
2	TIU-HSM-CASD-UEN-S21198A	Foreign Language: French-I

**4th Semester**

Sl. No	Course Code	Course Name	Contact Periods Per Week			Credits
			L	T	P	
Theory						
1	TIU-PC-UEE-T22101	Electrical Machines-I	3	1	0	4
2	TIU-PC-UEE-T22102	Electrical Measurement & Measuring Instruments	3	1	0	4
3	TIU-PC-UEE-T22104	Signals & Systems	3	1	0	4
4	TIU-PC-UEE-T22103	Digital Electronics Circuits	3	0	0	3
5	TIU-BS-UMA-T22101	Probability and Statistics	3	0	0	3
Practical						
6	TIU-PC-UEE-L22101	Electrical Machines Lab-I	0	0	3	1.5
7	TIU-PC-UEE-L22102	Electrical Measurement & Measuring Instruments Lab	0	0	3	1.5
8	TIU-PC-UEE-L22103	Digital Electronics Circuits Lab	0	0	3	1.5
Sessional						
9	*	Career Advancement And Skill Development	0	0	2	1
10	TIU-HSM-UES-S22192	Entrepreneurship Skill Development	0	0	2	1
Total Credits						24.5

***CASD Bucket for 4th Semester**

1	TIU-HSM-CASD-UEN-S22198A	Foreign Language: French-II
2	TIU-HSM-CASD-UEE-S22198A	Placement grooming

**5th Semester**

Sl. No.	Course Code	Course Name		Contact Periods Per Week			Credits
				L	T	P	
Theory							
1	TIU-PC-UEE-T31101	Electrical Power Systems -I		3	1	0	4
2	TIU-PC-UEE-T31102	Control Systems Engineering		3	1	0	4
3	TIU-PC-UEE-T31103	Electrical Machines – II		3	1	0	4
4	TIU-PC-UEE-T31104	Microprocessor and Microcontroller		3	0	0	3
5	TIU-PE-UME-E31105B	Elective-I	1. Thermal Engineering	3	0	0	3
	TIU-PE-UEE-E31105A		2. Object Oriented Programming with C++ and Java				
Practical							
6	TIU-PC-UEE-L31104	Microprocessor and Microcontroller Lab		0	0	3	1.5
7	TIU-PC-UEE-L31101	Power Systems Lab -I		0	0	3	1.5
8	TIU-PC-UEE-L31102	Control Systems Engineering Lab		0	0	3	1.5
9	TIU-PC-UEE-L31103	Electrical Machines Lab -II		0	0	3	1.5
Sessional							
10	*	Career Advancement and Skill Development		3	0	0	3
11	TIU-HSM-UES-S31191	Entrepreneurship Skill Development		0	0	2	1
Total Credits							28

***CASD Bucket for 5th Semester**

1	TIU-CASD-UEE-S31101A	Programming Language: C & Python
2	TIU-CASD-UTR-S31101B	SAP

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**6th Semester**

Sl. No.	Course Code	Course Name	Contact Periods Per Week			Credits		
			L	T	P			
Theory								
1	TIU-PC-UEE-T32101	Electrical Power Systems -II	3	1	0	4		
2	TIU-PC-UEE-T32102	Digital Signal Processing	3	1	0	4		
3	TIU-PC-UEE-T32103	Power Electronics	3	1	0	4		
4	TIU-HSM-UMG-T32101	Principle of Management	3	0	0	3		
5	TIU-PE-UEE-E32104B	Elective-II	1. Instrumentation and Process Control		3	0	0	3
	TIU-PE-UEE-E32104A		2. Data Structure and Algorithms					
Practical								
6	TIU-PC-UEE-L32102	Digital Signal Processing Lab	0	0	3	1.5		
7	TIU-PC-UEE-L32103	Power Electronics Lab	0	0	3	1.5		
8	TIU-PC-UEE-L32101	Electrical Power Systems-II Lab	0	0	3	1.5		
9	TIU-PE-UEE-L32104B	Elective-II	1. Instrumentation and Process Control Lab		0	0	3	1.5
	TIU-PE-UEE-L32104A		2. Data Structure and Algorithms Lab					
Sessional								
10	*	Career Advancement and Skill Development	0	0	2	1		
11	TIU-HSM-UES-S32192	Entrepreneurship Skill Development	0	0	2	1		
Total Credits						26		

***CASD Bucket for 6th Semester**

1	TIU-CASD-UEE-S32101A	AUTOCAD: Electrical Application
2	TIU-CASD-UEE-S32101B	MATLAB Programming & Simulation
3	TIU-CASD-UEE-S32101C	Digital IC Design

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Sl. No.	Course Code+	Course Name	Contact Periods Per Week			Credits	
			L	T	P		
Theory							
1	TIU-PC-UEE-T41101	Industrial Drives	3	1	0	4	
2	TIU-PC-UEE-T41102	Utilization of Electric power	3	0	0	3	
3	TIU-PE-UEE-E41103A	Elective-III	3	0	0	3	
	TIU-PE-UEE-E41103B						1. Special Electrical Machines
	TIU-PE-UEE-E41103C						2. Web Technologies
4	TIU-PE-UEE-E41104A	Elective-IV	3	0	0	3	
	TIU-PE-UEE-E41104B						3. High Voltage Engineering
5	TIU-PE-UEE-E41105A	Elective-V	3	0	0	3	
	TIU-PE-UEC-E41105B						1. Machine Learning
Practical							
6	TIU-PC-UEE-L41101	Industrial Drives Lab	0	0	3	1.5	
Sessional							
7	*	Career Advancement and Skill Development	3	0	0	3	
8	TIU-PC-UEE-S41101	Electrical Machine Design	2	0	0	2	
9	TIU-HSM-UES-S41191	Entrepreneurship Skill Development	0	0	2	1	
10	TIU-PR-UEE-P41199	Project Work-I	0	0	4	2	
11	TIU-PR-UEE-I41199	Industrial Training	0	0	4	2	
Total Credits						27.5	

***CASD Bucket for 7th Semester**

1	TIU-CASD-UEE-S41101A	HVDC & FACTS
2	TIU-CASD-UEE-S41101B	Robotics and Automation
3	TIU-CASD-UEE-S41101C	Renewable Energy sources and Systems

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**8th Semester**

Sl. No.	Course Code	Course Name	Contact Periods Per Week			Credits
			L	T	P	
Sessional						
1	*	Career Advancement and Skill Development	0	0	2	1
2	TIU-HSM-UES-S42192	Entrepreneurship Skill Development	0	0	2	1
3	TIU-PR-UEE-P42198	Project Work-II	0	0	2	2
4	TIU-PR-UEE-G42198	Grand Viva	0	0	2	2
Total Credits						6

***CASD Bucket for 8th Semester**

1	TIU-CASD-UEE-S42101A	PCB Design
2	TIU-CASD-UEE-S42101B	Internet of Things (IoT) Applications in Electrical Engineering

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