



**4-Year Bachelor of Technology (B.Tech.) Curriculum and
Syllabus for Electrical Engineering with AI**

Seventh Semester

Course Code	Course Title	Contact Hrs. / Week			Credit
		L	T	P	
Theory					
TIU-UEE-T401	Career Advancement & Skill Development: AI for Smart Power Grids	2	1	0	3
TIU-UEE-T403	Power System Protection & Switchgear	3	1	0	4
TIU-UEE-T405	Power Electronics & Drives	4	0	0	4
TIU-UEE-T407	Digital Signal Processing	3	1	0	4
TIU-UMG-T401	Industrial Management	3	0	0	3
Practical					
TIU-UEE-L403	Digital Signal Processing Lab	0	0	3	2
TIU-UEE-L405	Power Electronics & Drives Lab	0	0	3	2
TIU-UEE-L407	Power System Protection & Switchgear Lab	0	0	3	2
Sessional					
TIU-UES-S499	Entrepreneurship Skill Development	0	0	2	2
TIU-UEE-I499	Project Work-I	0	0	2	2
TIU-UEE-P499	Industrial Training	0	0	2	2
Total Credits					30

Detailed Syllabus

Career Advancement & Skill Development

TIU-UEE-T401

LTP: 2-1-0

Credits: 3

High voltage power transmission and distribution. Insulators: Type of insulators and their applications, voltage distribution and string efficiency of disc insulators. Corona: Theory of corona formation, corona loss and radio interference. Overvoltage phenomena: Lightning and switching surges. Travelling waves: