

**UTKAL GOURAV MADHUSUDAN INSTITUTE OF TECHNOLOGY, RAYAGADA**  
**Academic lesson plan for summer semester - 2023**

Name of the teaching faculty: **Sarita bauri**  
 Semester: **4<sup>th</sup>**  
 No. of periods per week: **4**  
 Semester Exam: **80**  
 Total Marks: **100**

Discipline / Dept.: **EE**  
 Subject (Theory): **GTD**  
 Total Periods: **60**  
 Class Test: **20**

<b>Week</b>	<b>Period</b>	<b>Unit / chapter</b>	<b>Topic to be covered</b>
1 <sup>st</sup>	1 <sup>st</sup>	Generation of electricity	Elementary idea on generation of electricity from Thermal, Power station
	2 <sup>nd</sup>	Generation of electricity	Elementary idea on generation of electricity from Hydel Power station
	3 <sup>rd</sup> 3RD	Generation of electricity	Elementary idea on generation of electricity from Hydel Power station
	4 <sup>th</sup>	Generation of electricity	Elementary idea on generation of electricity from Nuclear Power station
2 <sup>nd</sup>	1 <sup>st</sup>	Generation of electricity	Elementary idea on generation of electricity from Nuclear Power station
	2 <sup>nd</sup>	Generation of electricity	Introduction to Solar Power Plant
	3 <sup>rd</sup>	Generation of electricity	Layout diagram of generating stations
	4 <sup>th</sup>	Transmission of electric power	Layout of transmission and distribution scheme
3 <sup>rd</sup>	1 <sup>st</sup>	Transmission of electric power	Voltage Regulation & efficiency of transmission.
	2 <sup>nd</sup>	Transmission of electric power	State and explain Kelvin's law for economical size of conductor
	3 <sup>rd</sup>	Transmission of electric power	Corona and corona loss on transmission lines.
	4 <sup>th</sup>	Transmission of electric power	Corona and corona loss on transmission lines.
4 <sup>th</sup>	1 <sup>st</sup>	Over head line	Types of supports
	2 <sup>nd</sup>	Over head line	size and spacing of conductor.
	3 <sup>rd</sup>	Over head line	Types of conductor materials.
	4 <sup>th</sup>	Over head line	State types of insulator and cross arms.
5 <sup>th</sup>	1 <sup>st</sup>	Over head line	State types of insulator and cross arms.
	2 <sup>nd</sup>	Over head line	Sag in overhead line
	3 <sup>rd</sup>	Over head line	support at same level and different level.
	4 <sup>th</sup>	Performance of short & medium lines	Calculation of regulation.
6 <sup>th</sup>	1 <sup>st</sup>	Performance of short & medium lines	Calculation of regulation.
	2 <sup>nd</sup>	Performance of short & medium lines	Calculation of regulation.
	3 <sup>rd</sup>	Performance of short & medium lines	Calculation of efficiency.
	4 <sup>th</sup>	Performance of short & medium lines	Calculation of efficiency.
7 <sup>th</sup>	1 <sup>st</sup>	Performance of short & medium lines	Problems on regulation and efficiency.
	2 <sup>nd</sup>	Performance of short & medium lines	Problems on regulation and efficiency.
	3 <sup>rd</sup>	EHV transmission	EHV AC transmission
	4 <sup>th</sup>	EHV transmission	EHV AC transmission
8 <sup>th</sup>	1 <sup>st</sup>	EHV transmission	Reasons for adoption of EHV AC transmission
	2 <sup>nd</sup>	EHV transmission	Problems involved in EHV transmission.
	3 <sup>rd</sup>	EHV transmission	HV DC transmission.
	4 <sup>th</sup>	EHV transmission	Advantages and Limitations of HVDC transmission
9 <sup>th</sup>	1 <sup>st</sup>	EHV transmission	Advantages and Limitations of HVDC transmission
	2 <sup>nd</sup>	Distribution System	Introduction to Distribution System
	3 <sup>rd</sup>	Distribution System	Radial Distribution System
	4 <sup>th</sup>	Distribution System	Ring Main Distribution System
10 <sup>th</sup>	1 <sup>st</sup>	Distribution System	Inter connected Distribution System
	2 <sup>nd</sup>	Distribution System	Distributor fed at one End Distributor fed at both the ends. Ring distributors.
	3 <sup>rd</sup>	Distribution System	Method of solving AC distribution problem.
	4 <sup>th</sup>	Distribution System	Three phase four wire star connected system