

ANNUAL CURRICULAR					PLAN (Year)								
NAMR OF THE LECTURER M. Jaya lakshmi Devi					CLASS : I B.Sc			Semester : II		Paper : II			
MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO- CURRICULAR ACTIVITY				
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	
Nov.	3 rd	3	S.H.O & sol. of D.E characteristics of simple harmonic motion.	-	-	-	-	-	-	-	-	-	-
			Torsional Pendulum. Compound pendulum.	-	Frequency of vibration of a spring	will be demonstrated in lab	1	yes	-	-	-	-	-
	4 th	3	measurement of 'g' using compound pendulum.	-	-	-	-	-	-	-	-	-	-
Dec	1 st	4	Beats, Principle of Superpositions. Combination 2:1 & 3:2.	-	S.H. vibrations 1:1 & 1:2. Lissajous figures.	YouTube Videos will be shown	1	yes	-	-	-	-	-
			Damped harmonic oscillator and its sol. Energy considerations.	-	Electro oscillator	-	-	-	-	-	-	-	-
	2 nd	5	Comparison of damped & undamped oscillator logarithmic decrement	-	-	PPT's will be shown	1	yes	-	-	-	-	-
	3 rd	5	Relaxation Time Quality factor. Forced oscillations. D.E & sol. amplitude & velocity	-	Resonance. Sharpness of Resonance.	-	-	-	-	Quiz	1	yes	-

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PHYSICS
waves & oscillations.

ANNUAL CURRICULAR					PLAN (Year)								
NAMR OF THE LECTURER M. Jaya lakshmi Devi					CLASS : I B.Sc			Semester : II		Paper : II			
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	4 th	4	I Mid Exams.	-	-	-	-	-	-	-	-	-	-
Jan	1 st	5	Fourier Theorem & evaluation of coefficients	-	-	-	-	-	-	-	-	-	-
			Analysis of periodic wave functions - Square wave, triangular & Saw tooth waves. Simple problems.	Applications of Fourier Theorem.	-	-	-	-	-	-	-	-	-
	2 nd	3	Transverse wave Propagation along a stretched string, modes, overtones & harmonics along a string clamped at both ends.	Sonometer, verification of laws.	-	-	-	-	-	Seminar	1	Yes	-
	3 rd	1	Energy transport General sol.	-	-	-	-	-	-	-	-	-	-
	4 th	5+1	Energy impedance Long. vibrations in bars, eqn. & sol.	-	-	-	-	-	-	-	-	-	-
			bar fixed at both ends one end & clamped at middle, tuning fork.	Boundary conditions	shown.	-	-	-	-	Debate	1	Yes	-

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waves & oscillations

ANNUAL CURRICULAR					PLAN (Year)								
NAMR OF THE LECTURER: M. Jaya lakshmi Devi					CLASS: IB.Sc			Semester: II		Paper: II			
MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO- CURRICULAR ACTIVITY				
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	
Jan	4 th		ultrasonic properties, Production methods,		You tube videos will be shown	1	Yes	-	-	-	-	-	-
			Piezo electric & magnetostriction methods.	Production of ultrasonics by using a transistor		-	-	-	-	-	-	-	-
Feb	1 st	4	II mid Exams	-		-	-	-	-	-	-	-	-
	2 nd	4.	detection methods, determination of wave length of ultrasonic waves.	SONAR		-	-	-	-	Group Discussion	1	Yes.	-
			Applications. Problems.	-		-	-	-	-	-	-	-	-

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SIR C.R.REDDY COLLEGE FOR WOMEN, ELURU
CURRICULUM LECTURER WISE 2019 - 2020

ANNUAL CURRICULAR					PLAN (Year)								
NAMR OF THE LECTURER K. SIRISHA					CLASS : II.M.P.CS-II		Semester : IV		Paper : IV				
MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO-CURRICULAR ACTIVITY				
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	
Nov	2 nd	4	Thermodynamics introduction, Isothermal and adiabatic process, Reversible and irreversible process, Carnot's engine and its efficiency, Carnot's theorem, second law of thermodynamics, kelvin's and clausius statements	system surroundings, Thermodynamic equilibrium	-	-	-	-	-	-	-	-	-
			ible process, Carnot's engine and its efficiency, Carnot's theorem, second law of thermo	equilibrium	will be shown in PPT's	1	Yes	-	-	-	-	-	-
			dynamics, kelvin's and clausius statements	-	-	-	-	-	-	-	-	-	-
Nov	3 rd	4	Entropy Physical significance, change in entropy in reversible and irreversible process	Heat and work concept of temperature	-	-	-	-	-	-	-	-	-
			entropy and disorder, entropy of universe, temperature-entropy (T-S) diagram and its uses, change of entropy of a perfect gas, change of entropy when ice changes into steam.	-	will be shown in Youtube videos	1	Yes	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-

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CURRICULUM LECTURER WISE 2019 - 2020

ANNUAL CURRICULAR					PLAN (Year)								
NAMR OF THE LECTURER <u>K. SIRISHA</u>					CLASS : <u>Impcsa</u>		Semester : <u>IV</u>		Paper : <u>IV</u>				
MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO- CURRICULAR ACTIVITY				
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	
Nov	4 th	4	Thermodynamics Potentials, Derivation of Maxwell's thermodynamic relations, Clausius clayperon's equation, Derivation for ratio of specific heats	-	will be shown in YouTube video	1	Yes			Seminar	1	Yes	
				-	-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-
Nov	5 th	2	Derivation for difference of two specific heats for perfect gas, Joule kelvin effect	Stefan-Boltzmann law using Maxwell's equations	-	-	-	-	-	-	-	-	-
Dec	1 st	4	Joule kelvin effect, expression for Joule kelvin coefficient for perfect and vanderwaal's gas	Liquid vapour curve, Fusion curve, sublimation curve	will be shown in PPT'S	1	Yes			Seminar	1	Yes	-
				-	-	-	-	-	-	-	-	-	-

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ANNUAL CURRICULAR					PLAN (Year)							
NAMR OF THE LECTURER K SIRISHA					CLASS : Impes₂			Semester : IV		Paper : TV		
MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO-CURRICULAR ACTIVITY			
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date
Dec	2 nd	4	Introduction low temp establish Physics, Joule kelvin effect, Joule's experiment, Joule expansion, Distinction b/w adiabatic and Joule Thomson expansion	-	-	-	-	-	Seminars	1	Yes	-
			Thomson expansion Expression for Joule Thomson cooling, liquefaction of He	-	will be shown in PPT's	1	Yes	-	-	-	-	-
Dec	3 rd	4	Kapitza's method, Adiabatic demagnetiz ation, production of low temperatures, Applications of sub stances at low temper ature, effects of chloro & fluoro Carbons on ozone layer	-	will be shown in Posters	1	Yes	-	-	-	-	-
				-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-
Dec	4		Christmas holidays	mid I exams	-	-	-	-	-	-	-	-
Jan	1 st	2hrs	Quantum theory of radiation, Introdu ction,	Thermal radiation	-	-	-	-	Group discus sion	1	Yes	-

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CURRICULUM LECTURER WISE 2019 - 2020

ANNUAL CURRICULAR					PLAN (Year)								
NAMR OF THE LECTURER <u>K.SIRISHA</u>					CLASS : <u>Impes 2</u> Semester : <u>IV</u>				Paper : <u>IV</u>				
MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO- CURRICULAR ACTIVITY				
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	
			Black body, Fermi's black body distribution of energy in the spectrum of black body.	Laws of Thermal radiation, Kischoff's law	-	+	-	-	-	-	-	-	-
			Wien's displacement law, Wien's law, Rayleigh-Jeans law	-	-	+	-	-	-	-	-	-	-
Jan	2 nd		Quantum Theory of radiation, Planck's Law	-	-	1	yes	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-
Jan	3 rd		Pongal holidays	-	-	-	-	-	-	-	-	-	-
Jan	4 th	4hrs	Measurement of radiation, types of Pyrometer, experimental determination	Fermi's total radiation Pyrometer	-	-	-	-	Quiz	1	yes	-	-
				-	-	-	-	-	-	-	-	-	-
Jan	5 th	3hrs	Angstroms Pyrheliometer, determination of solar const, Temperature of sun, Kinetic Theory of gases introduction	Polarising Pyrometer	-	1	yes	-	Debate	1	yes	-	-
				-	-	-	-	-	-	-	-	-	-

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ANNUAL CURRICULAR					PLAN (Year)								
NAMR OF THE LECTURER <u>K.SIRISHA</u>					CLASS <u>Impsa</u> Semester: <u>IV</u>			Paper: <u>IV</u>					
MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO- CURRICULAR ACTIVITY				
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	
Feb	1 st	2	Deduction of Maxwell's law of distribution of molecular speeds	speed distribution curves with constant Temperature	will be shown in PPT's	1	yes	-	-	Debate	1	yes	-
			experimental verification, Transport Phenomena.		-	-	-	-	-	-	-	-	-
	2 nd	4 hrs	mean free path, viscosity of gases	Avg speed & most probable	will be shown in youtube	1	yes	-	-	Group discussion	1	yes	-
			Thermal conductivity diffusion of gases Problems.	speed cp and Rms speed	-	-	-	-	-	-	-	-	-

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ANNUAL CURRICULAR					PLAN (Year)								
NAMR OF THE LECTURER: K. SIRISHA					CLASS: III MPC & III MPES			Semester: VI		Paper: Renewable Energy Elective			
MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO- CURRICULAR ACTIVITY				
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	
Nov	4	2	Introduction to elective Paper	-	-	-	-	-	-	-	-	-	-
Dec	1st	4	Definition and units of energy, Power, forms of energy, energy flow diagram to the earth. Role of energy in economic and social development.	Calculation of power consumption for a house.	-	1	-	-	-	-	-	-	-
					Yes will be shown PPT'S	1	Yes	-	-	-	-	-	-
						-	-	-	-	-	-	-	-
Dec	2nd	4	Environmental degradation due to energy production and utilization, air and water pollution, depletion of ozone layer, global warming, biological damage due to environmental degradation.	Soil Pollution	-	-	-	-	-	-	-	-	-
					Yes will be shown in youtube videos	1	Yes	-	-	-	-	-	-
						-	-	-	Seminar	1	Yes	-	-
						-	-	-	-	-	-	-	-
Dec	3rd	4	Energy sources available in India		-	-	-	-	-	-	-	-	-

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ANNUAL CURRICULAR					PLAN (Year)							
NAME OF THE LECTURER: <u>K. SIRISHA</u>					CLASS: <u>III B.Sc</u>			Semester: <u>VI</u>		Paper: <u>Renewable energy</u>		
MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO-CURRICULAR ACTIVITY			
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date
			urban and rural energy consumption	-	-	-	-	-	seminar	1	yes	-
			nuclear energy - promise and future, energy as a factor	Nuclear Reactor	-	-	-	-	-	-	-	-
			limiting growth, need for use of new and renewable energy sources.	-	will be shown in PPT'S	1	yes	-	-	-	-	-
			energy consumption in various sectors	-	-	-	-	-	-	-	-	-
			energy resources, coal, oil, natural gas	-	-	-	-	-	-	-	-	-
			nuclear and hydro electric power.	-	-	-	-	-	-	-	-	-
Dec	4th		mid I exams	-	-	-	-	-	-	-	-	-
Jan	1st	4	Solar energy, spectral distribution of radiation, solar water heating system, Applications	Solar Flares	will be shown in youtube videos	1	yes	-	Group discussion	1	yes	-
				-	-	-	-	-	-	-	-	-

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ANNUAL CURRICULAR					PLAN (Year)								
NAMR OF THE LECTURER <u>K. SIRISHA</u>					CLASS : <u>B.Sc</u>			Semester : <u>VI</u>		Paper : <u>Renewable energy</u>			
MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO- CURRICULAR ACTIVITY				
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	
			Solar cooker, solar cell, types of solar	-	-	-	-	-	-	-	-	-	-
			cells, wind energy introduction, principle of wind energy conversion.	Disadvantages of wind energy	-	-	-	-	-	-	-	-	-
Jan	2 nd	2	Components of wind turbines, operation and characteristics of a wind turbine, Applications of wind energy.	-	will be shown in PPTs	1	yes	-	Quiz	1	yes	-	-
				-	-	-	-	-	-	-	-	-	-
Jan	3 rd		Pongal Holidays	-	-	-	-	-	-	-	-	-	-
Jan	4 th	4+1	ocean energy introduction, principle of ocean thermal energy conversion, Tidal power generation, Tidal energy technologies, energy from waves	Disadvantages of Tidal energies	will be shown in YouTube videos	1	yes	-	Quiz	1	yes	-	-
				-	-	-	-	-	-	-	-	-	-
				explain about biogas	-	-	-	-	-	-	-	-	-

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NAMR OF THE LECTURER <u>K.SIRISHA</u>					CLASS : <u>III B.Sc</u>			Semester : <u>VI</u>		Paper : <u>Elective</u>		
MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO- CURRICULAR ACTIVITY			
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date
			History of hydrogen energy, Hydrogen	-	shown in PPT'S	1	Yes	-	-	-	-	-
			Production methods	-	-	1	-	-	-	-	-	-
			Electrolysis of water, uses of hydrogen as fuel.	-	-	-	-	-	-	-	-	-
Feb	1st	4	mid-II exams		-	-	-	-	-	-	-	-
	2nd	4	Energy from biomass sources of biomass	Biogas making process	show in you tube videos	1	Yes	-	-	-	-	-
			conversion of biomass into fuels, energy	-	-	-	-	-	-	-	-	-
			through fermentation, pyrolysis, gasification and	Biogas Plant	-	-	-	-	-	-	-	-
			Combustion- Aerobic and anaerobic bio conversion,	-	-	-	-	-	-	-	-	-
			properties of biomass properties & charac	-	-	-	-	-	-	-	-	-
			terises of biogas	-	-	-	-	-	-	-	-	-

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SIR C.R.REDDY COLLEGE FOR WOMEN, ELURU
CURRICULUM LECTURER WISE 2019-2020

ANNUAL CURRICULAR					PLAN (Year)								
NAME OF THE LECTURER: S. Pavani					CLASS: cluster C3			Semester:		Paper: C3 Energy storage device			
MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO-CURRICULAR ACTIVITY				
					Activity Conducted	Hours Allotted	Whether Conducted	if not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	if not Alternate Date	
Nov	4	2	energy storage Introduction, needs of energy storage	Compressed air storage	will be shown PPT'S	1	Yes	-	-	-	-	-	-
			Different modes of energy storage,	-	-	-	-	-	-	-	-	-	-
Dec	1	4	fly wheel energy storage electrical & magnetic Energy storage.	thermal Energy storage.	will be shown you tube video	1	Yes	-	-	-	-	-	-
			capacitors electro magnets, chemical energy storage.	-	-	-	-	-	-	-	-	-	-
			Thermo chemical photo chemical, electrochemical hydrogen for energy storage	-	-	-	-	-	-	-	-	-	-

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SIR C.R.REDDY COLLEGE FOR WOMEN, ELURU
CURRICULUM LECTURER WISE 2019 - 2020

ANNUAL CURRICULAR					PLAN (Year)									
NAME OF THE LECTURER					CLASS :				Semester :		Paper :			
S. Pawani					cluster C3						C ₃ Energy storage devices			
MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO- CURRICULAR ACTIVITY					
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date		
-	2	4	electro chemical energy storage system - batteries - primary secondary, lithium	-	will be shown you tube videos	1	Yes	-	-	-	-	-	-	
			battery solid state and molten solvent batteries, lead	principle of different types of batteries	-	-	-	-	-	-	-	-	-	
			acid battery, nickel cadmium batteries, advanced batteries	-	-	-	-	-	-	-	-	-	-	
	3	4	role of carbon nano meter tubes in electrodes super conducting magnetic energy storage system (SMES) capacitor and	-	will be shown ppt's	1	Yes	-	-	-	-	-	-	
			battery - comparison. Applications of super capacitor	-	-	-	-	-	-	-	-	-	-	
			fuel cell definition differences between batteries and fuel cells	super conducting magnets	-	-	-	-	-	-	-	-	-	

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CURRICULUM LECTURER WISE 2019 - 2020

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ANNUAL CURRICULAR					PLAN (Year)								
NAME OF THE LECTURER: S. Pavani					CLASS: cluster C3				Semester: Paper: Energy Storage devices				
MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO-CURRICULAR ACTIVITY				
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	
	4	2	Exams	-	-	-	-	-	-	-	-	-	-
Jan	1	3	Fuel cell components principle and working of fuel cell	-	will be shown ppt's & Explained	1	Yes	-	-	-	-	-	-
			performance, characteristics efficiency advantages.	-	-	-	-	-	-	-	-	-	-
	2nd	4	Advantages and disadvantages of fuel cell, classification on alkaline fuel cell	pumped hydro systems	will be shown you tube videos	1	Yes	-	-	-	-	-	-
			phosphoric cell fuel, molten carbonate fuel cell solid oxide fuel cell	-	-	-	-	-	-	-	-	-	-
	3rd	1	Holiday	-	-	-	-	-	-	-	-	-	-

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SIR C.R.REDDY COLLEGE FOR WOMEN, ELURU
CURRICULUM LECTURER WISE 2019-2020

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ANNUAL CURRICULAR					PLAN (Year)							
NAME OF THE LECTURER					CLASS :	Semester :	Paper : C3 Energy storage devices					
S. Pavani					CURRICULAR ACTIVITY				CO-CURRICULAR ACTIVITY			
MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date
	4	4+3	proton Exchange membrane fuel cell	compressed air storage.	will be shown PPTS	1	Yes	-	Seminar	1	Yes	-
				-	-	-	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-
feb	1st	4	Applications of fuel cells	-	will be shown youtube videos	1	Yes	-	Quiz	1	Yes	-
				-	-	-	-	-	-	-	-	-
	2nd	4	problems on above chapters	-	-	-	-	-	-	-	-	-

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2019-2020

19-20

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ANNUAL CURRICULAR					PLAN (Year)								
NAMR OF THE LECTURER: <i>Ch. Anitha</i>					CLASS: <i>cluster</i>		Semester: <i>V sem</i>		Paper: <i>solar, thermal & photovoltaic aspects</i>				
MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO- CURRICULAR ACTIVITY				
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	
NOV	4th	3hrs	→ Structure of sun, → solar constant	foral apparent time,	will be shown you	1	Yes	-	-	-	-	-	-
			→ concept of zenith angle, air mass declination angle, hour angle.	Equation of time,	to be videos	1	-	-	-	-	-	-	-
			→ solar & surface azimuth angles direct & diffuse radiations.	Standard time	-	-	-	-	-	-	-	-	-
DEC	1st	4hrs	→ solar intensity measurement pyrheliometry	-	-	-	-	-	Group discussion	1	Yes	-	-
			→ Kirchoff's law relation b/w absorptance, emittance, reflectance	Black body	will be shown PPTS and Explain	1	Yes	-	-	-	-	-	-
			→ selective surface preparation and characterisation, types & applications anti reflective coating	-	-	-	-	-	-	-	-	-	-

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ANNUAL CURRICULAR					PLAN (Year)								
NAMR OF THE LECTURER: CH. ANITHA					CLASS: C1		Semester: cluster		Paper: solar thermal & photovoltaic aspects				
MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO-CURRICULAR ACTIVITY				
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	
Dec	2nd	4hrs	→ Description of FPC, liquid heating type energy balance eqn efficiency. → Temperature distribution on FPC	flow-factor	will be shown you tube videos & Explained	1	Yes	-	-	-	-	-	-
			→ Definition of fin efficiency & collector efficiency.	concentrator collectors	-	-	-	-	-	-	-	-	-
			→ evacuated tubular collectors.	-	-	-	-	-	-	-	-	-	-
Dec	3rd	4hrs	→ physics of solar cell, types of interfac photovoltaic effect	-	-	-	-	-	-	-	-	-	-
			→ Equivalent ckt of solar cell. o/p parameters	thin film solar cells	will be shown you tube videos & Explained	1	Yes	-	-	-	-	-	-
			→ Series & shunt resistances & its effect on cell efficiency	-	-	-	-	-	-	-	-	-	-
			Variation of efficiency with band gap & temperature.	-	-	-	-	-	-	-	-	-	-

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ANNUAL CURRICULAR					PLAN (Year)							
NAMR OF THE LECTURER : CH. ANITHA					CLASS : C ₁		Semester : cluster VI sem		Paper : solar thermal & photo voltaic aspects			
MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO- CURRICULAR ACTIVITY			
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date
Dec	4 th	3	I - mid Exams.	-	-	-	-	-	-	-	-	-
Jan	1 st	4 hrs	→ SHWS, types of SHWS,	-	will be shown you tube video	1	Yes	-	-	-	-	-
			→ standard method of testing the efficiency of SHWS.	solar cooker	Explained	-	-	-	-	-	-	-
			→ passive space heating.	-	-	-	-	-	-	-	-	-
Jan	2 nd	3 hrs.	→ cooling concepts,	-	-	-	-	-	seminar	1	Yes	-
			→ solar disininator drier,	-	will be shown on PPTS and	1	Yes	-	-	-	-	-
			→ solar thermal power generation.	-	Explained	-	-	-	-	-	-	-
Jan	3 rd		Pongal holidays	-	-	-	-	-	-	-	-	-
	4 th	4 hrs	solar cell module assembly,	Storage of Energy	-	-	-	-	-	-	-	-

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ANNUAL CURRICULAR					PLAN (Year)				solar thermal & photovoltaic aspects				
NAMR OF THE LECTURER CH. ANITHA					CLASS : C1		Semester : VI sem		Paper :				
MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO-CURRICULAR ACTIVITY				
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	
			→ steps involved in the fabrication of solar module.	-	will be shown you	1	Yes	-	-	-	-	-	-
		3 hrs	→ module performance → IV characteristics	Bypass & blocking diodes	tube videos & Explained	-	-	-	-	-	-	-	-
			→ modules in series & parallel.	-	-	-	-	-	Debate	1	Yes	-	-
Feb	1st	4 hrs	II mid Exams.	-	-	-	-	-	-	-	-	-	-
	2nd	4 hrs	→ module protection → solar pv system & its components → pv array.	-	will be shown ppts & Explained	1	Yes	-	Quiz	1	Yes	-	-
			-	-	-	-	-	-	-	-	-	-	-
			-	-	-	-	-	-	-	-	-	-	-
			-	-	-	-	-	-	-	-	-	-	-

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ANNUAL CURRICULAR					PLAN III (Year) Wind, Hydro & Ocean Thermal Energies								
NAMR OF THE LECTURER B. DURGA PRASANNA					CLASS : physics cluster (C ₂) Semester : VI				Paper : VIII (C ₂)				
MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO-CURRICULAR ACTIVITY				
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	
NOV	4	2	Introduction, History of wind generation	Renewable Energy Sources	-	-	-	-	-	-	-	-	-
Dec	1	4	meteorology of wind	-	will be shown youtube video	1	Yes	-	-	-	-	-	-
			world distribution of wind	-	-	-	-	-	-	-	-	-	-
			wind speed variation with height	-	-	-	-	-	-	-	-	-	-
	2	4	wind speed statistics	-	-	-	-	-	-	-	-	-	-
			wind energy conversion principles	-	-	-	-	-	-	-	-	-	-
			General Introduction	W E C S applicat- -ions	-	-	-	-	-	-	-	-	-
			Types and classification of W E C S	-	-	-	-	-	-	-	-	-	-
			Power, torque and speed characteristics	-	-	-	-	-	-	-	-	-	-
	3	4	wind energy conversion system.	-	will be shown youtube video	1	Yes	-	-	-	-	-	-
			Aero dynamic design principles.	-	-	-	-	-	-	-	-	-	-
			Axial momentum theory	-	-	-	-	-	-	-	-	-	-
			blade element theory	-	-	-	-	-	-	-	-	-	-
			maximum power coefficient.	-	-	-	-	-	-	-	-	-	-

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B. Durga Prasa

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ANNUAL CURRICULAR					PLAN III (Year)								
NAMR OF THE LECTURER B. Durga prasad					CLASS : Physics cluster Semester : VI				Paper : C2				
MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO-CURRICULAR ACTIVITY				
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	
	4	2	Exams	-	-	-	-	-	-	-	-	-	-
Jan	1	3	Rotor characteristics wind pumps; perform	Rotor types	-	-	-	-	-	-	-	-	-
			-ance analysis, design concept and	-	will be shown youtube video	1	yes	-	-	-	-	-	-
			testing. principle of wind energy generation	-	-	-	-	-	-	-	-	-	-
	2	4	wind energy in India Environmental impacts	-	-	-	-	-	Student Seminars	I	NO	25/1/20	
			of wind farms Small Hydro power systems overview of	-	-	-	-	-	-	-	-	-	-
			micro, mini and small Hydro systems.	-	will be shown ppt	I	yes	-	-	-	-	-	-
	3	1	Holiday	-	-	-	-	-	-	-	-	-	-
	4	4+3	Hydrology, Elements of pumps and turbine	Hydrologic cycle	-	-	-	-	-	-	-	-	-

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ANNUAL CURRICULAR					PLAN III (Year)								
NAMR OF THE LECTURER B. Durga pragna					CLASS : physics cluster Semester : VI				Paper : C ₂				
MONTH	WEEK	HOURS AVAILABLE	SYLLABUS/ TOPIC	Additional Input/Value Addition Provided/ Taught	CURRICULAR ACTIVITY				CO-CURRICULAR ACTIVITY				
					Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	Activity Conducted	Hours Allotted	Whether Conducted	If not Alternate Date	
			Selection and design criteria of pumps and turbines.	-	will be show youtube video	1	YES	-	-	-	-	-	-
			Site selection. Speed and Voltage regulation.	-	-	-	-	-	-	-	-	-	-
			OTEC technology process, working principle, electricity generation methods from OTEC.	-	will be show ppt	1	Yes	-	-	-	-	-	-
				-	-	-	-	-	-	-	-	-	-
Feb	1	4	Advantages and disadvantages of OTEC, Applications.	-	-	-	-	-	Quiz	1	Yes	-	-
			Origin and nature of tidal energy.	-	will be shown youtube video	1	yes	-	-	-	-	-	-
			wave Energy Introduction, Basics of wave motion.	-	-	-	-	-	-	-	-	-	-
	2	4	power in waves, wave Energy Conversion devices.	-	-	-	-	-	-	-	-	-	-
			Advantages and disadvantages Applications of wave energy.	-	-	-	-	-	-	-	-	-	-

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