



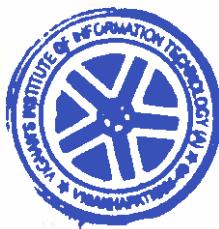
VIGNAN'S

INSTITUTE OF INFORMATION TECHNOLOGY
(AUTONOMOUS)

(Approved by AICTE-New Delhi & Affiliated to JNTUK, Kakinada)
Beside VSEZ, Duvvada, Vadlapudi Post, Gajuwaka, Visakhapatnam - 530 049.

Summary of Digital Content Developed by Faculty during Academic Year 2020-2021

S. No.	Name of the programme	Total No. of courses	Total No. of video lectures
1.	B. Tech. - Civil Engineering	13	481
2.	B. Tech. - Electrical & Electronics Engineering	13	422
3.	B. Tech. - Mechanical Engineering	15	523
4.	B. Tech. - Electronics & Communication Engineering	16	574
5.	B. Tech. - Computer Science and Engineering	13	413
6.	B. Tech. - Information Technology	04	117
7.	B. Tech. - Electronics & Computer Engineering	15	452
8.	B. Tech. - Basic Science & Humanities	03	059
9.	MBA - Master of Business Administration	11	470
10.	MCA - Master of Computer Applications	02	043
Grand Total		105	3554


PRINCIPAL

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VIGNAN'S INSTITUTE OF
Information Technology (A)
Beside: VSEZ, Duvvada, Visakhapatnam-49



DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING
Digital Content Developed by Faculty during Academic Year 2020-2021

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
Name of the Subject: Electro Magnetic Fields						
UNIT I: Electrostatics						
1	II-I	Mr. A.V.Satyanarayana	L1	EMF Introduction and Coordinate systems	14	https://youtube.com/playlist?list=PL6R2w8a1ttmTxoz5G5uTUKWe2_UDX <u>Lm-</u> <u>n</u>
2			L2	Dot product and Cross product		
3			L3	Coulombs law and charge distributions		
4			L4	Numericals on Coulombs law		
5			L5	E due to infinite line charge		
6			L6	E due to infinite sheet charge		
7			L7	Problems on E		
8		Dr. R .Ravi Shankar	L8	Gauss law (part-1)		
9			L9	Gauss law (part-2) and applications		
10			L10	Gauss law Applications 1		
11			L11	Gauss law Applications 2(shell)		
12			L12	Gauss law Applications 3(sphere)		
13			L13	Gauss law Applications 3(coaxial cable)		
14		Mr. A.V.Satyanarayana	L14	Poissons and laplace equations, Delectric dipole, work & potential		
UNIT II: Magnatostatics						
1	II-I	Mr. A.V.Satyanarayana	L1	Magnetostatics introduction & Biot Savarts law	12	https://youtube.com/playlist?list=PL6R2w8a1ttmTxoz5G5uTUKWe2_UDX <u>Lm-</u> <u>n</u>
2			L2	Applications of Biot Savarts law (H due to line charge)		
3			L3	Biot Savart law and applications 1		
4			L4	Biot Savart law and applications 2		
5		Dr. R .Ravi Shankar	L5	Amperes Circuital Law and applications 1		
6			L6	Amperes Circuital Law proof		
7		Mr. A.V.Satyanarayana	L7	Applications of Amperes Circuital Law 1		
8			L8	Divergence part- 1		
9			L9	Divergence part- 2		
10			L10	Curl and Stokes theorem, Levitation		
11			L11	Maxwell equations, Scalar & Vector magnetic potential, Problem		
12		Dr. R .Ravi Shankar	L12	H due to Coaxial Cable by amperes law		
UNIT III: Materials in Electric field & Magnetic force						
1	II-I	Mr. A.V.Satyanarayana	L1	Current and Current density	17	https://youtube.com/playlist?list=PL6R2w8a1ttmTxoz5G5uTUKWe2_UDX <u>Lm-</u> <u>n</u>
2			L2	Relation between I and J		
3			L3	Relation between J and volume charge density		
4			L4	Continuity equation		
5			L5	Conductors and point form of ohms law		
6			L6	Resistance of Conductor		
7			L7	Relaxation time		
8			L8	Dielectrics		
9			L9	Polarisation		
10			L10	Numericals related to Unit III		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
11	Dr. R .Ravi Shankar		L11	Properties of conductors and dielectrics	10	
12			L12	Boundary conditions (Part-1)		
13			L13	Boundary conditions (Part-2)		
14			L14	Refraction of D & Numericals		
15			L15	Magnetic Force		
16			L16	Numericals on magnetic Force		
17			L17	Torque on Current Carrying loop Placed in Magnetic field		

UNIT IV: Capacitance and Inductance Calculations

1	II-I	Mr. A.V.Satyanarayana	L1	Capacitance and parallel plate capacitor	10	https://youtube.com/playlist?list=PL6R2w8a1ttmTxozSG5uTUKWe2_UDX
2			L2	Capacitance of Coaxial cable and Spherical capacitor		
3			L3	Composite Dielectrics, Problems		
4			L4	Inductance of solenoid and toroid		
5			L5	Inductance of Coaxial cable, Problems		
6			L6	Coefficient of Coupling		
7	Dr. R .Ravi Shankar		L7	Energy Stored in Electrostatic Field	10	
8			L8	Energy Stored in Electrostatic Field		
9			L9	Magnetic Boundary Conditions		
10	Mr. A.V.Satyanarayana	L10	Mutual inductance bw straight wire and current carrying loop			

UNIT V: Time varying fields

1	II-I	Mr. A.V.Satyanarayana	L1	Time varying fields, Faradays laws	5	https://youtube.com/playlist?list=PL6R2w8a1ttmTxozSG5uTUKWe2_UDX
2			L2	Modified Amperes circuital law		
3			L3	Displacement current density		
4			L4	Numericals		
5			L5	Maxwells equations for good conductor and free space		

Name of the Subject: Fundamentals of Signals and Systems

1	II-I	Mr. V.Vivek	L1	Standard signals	15	https://youtube.com/playlist?list=PL6R2w8a1uY7HoU-h-jQeHGvSwPPfR
2			L2	Classification of Systems		
3			L3	Classification of signals		
4			L4	Operation of signals		
5		Mr. Ramesh Kumar Patro	L5	Energy calculation		
6			L6	Problem on System Classification (Part-1)		
7			L7	Problem on System Classification (Part-2)		
8			L8	Problem on System Classification (Part-3)		
9			L9	Problems on impulse signal		
10			L10	Problems on power calculation		
11			L11	Problem on signal energy		
12			L12	Problem on even and odd parts of a signal		
13			L13	Problems on even and odd parts		
14			L14	Problem on periodicity		
15			L15	Problems on periodicity		

UNIT II: Fourier series and Fourier Transform

1	II-I	Mr. Ramesh Kumar Patro	L1	Fourier series and Fourier transform	12	https://youtube.com/playlist?list=PL6R2w8a1uY7HoU-h-jQeHGvSwPPfR
2			L2	Graphical convolution		
3			L3	Impulse response and convolution		
4			L4	Problem on Trigonometric Fourier series		
5			L5	Complex Fourier series problem		
6			L6	Convolution example1		
7			L7	Convolution example		
8			L8	Convolution example		
9			L9	Convolution example		
10			L10	Correlation function and its application		
11			L11	Basic classification of filters		
12			L12	Application of filters		

UNIT III: Sampling theorem & analysis of linear systems

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
1	II-I	Mr.V.Vivek	L1	Need of LTI Systems	4	https://youtube.com/playlist?list=PL_Lm-6R2w8a1uY7HoU-h-iQeHGySwPPfR
2			L2	Complex Fourier series problem		
3		Mr. Ramesh Kumar Patro	L3	Properties of convolution		
4			L4	Properties of LTI systems		
UNIT IV: Analysis of continuous time systems						
1	II-I	Mrs. Smruthi Das	L1	Laplace Transforms	2	https://youtube.com/playlist?list=PL_Lm-6R2w8a1uY7HoU-h-iQeHGySwPPfR
2			L2	Sampling theorem and reconstruction of signals		
UNIT V: Analysis of Discrete time systems						
1	II-I	Mr. Ramesh Kumar Patro	L1	Discrete signal or sequence representation	11	https://youtube.com/playlist?list=PL_Lm-6R2w8a1uY7HoU-h-iQeHGySwPPfR
2			L2	What is Z-Transform		
3			L3	properties of Z-Transform		
4			L4	Region of convergence Part1		
5			L5	Region of Convergence-Properties		
6			L6	Z - Transforms problems part-1		
7			L7	Z - Transforms problems part-2		
8			L8	Z - Transforms problems part-3		
9			L9	Inverse Z-Transforms Problems part-1		
10			L10	Inverse Z-Transforms Problems part-2		
11			L11	Inverse Z-Transforms Problems part-3		

Name of the Subject: Power Transmission Engineering

UNIT I: Transmission Line Parameters						
1	II-II	Mr. K. Sravan Kumar	L1	Conductor Materials & types	9	https://youtube.com/playlist?list=PL_Lm-6R2w8a1uY7HoU-h-iQeHGySwPPfR
2			L2	Resistance calculation		
3			L3	Inductance calculation for solid conductor		
4			L4	Inductance calculation for 1 ph Transmission line		
5			L5	Concept of GMD and GMR		
6			L6	Calculation of Inductance for 3ph Transmission Lines Symmetrical & Asymmetrical		
7			L7	Inductance Calculation for 3 ph Transposed Transmission Lines		
8			L8	Inductance Calculation for Double Circuit Lines		
9		Mr. K.Appala Naidu	L9	Capacitance of single phase Transmission line		

UNIT II: Performance of Transmission Lines

1	II-II	Mr. K.Appala Naidu	L1	Classification of Transmission lines	9	https://youtube.com/playlist?list=PL_Lm-6R2w8a1uY7HoU-h-iQeHGySwPPfR
2			L2	Short Transmission lines		
3			L3	Numerical on Short Transmission Lines		
4			L4	Nominal T Method		
5			L5	Nominal PI Method		
6			L6	Numerical on Nominal T and Pi Method		
7			L7	Long Transmission line		
8			L8	Numerical on Long Transmission Line		
9			L9	Equivalent PI and T Network of Long Lines		

UNIT III: Waves in Long Transmission Lines and Power System Transients

1	II-II	Mr. K. Sravan Kumar	L1	Incident, Reflected and Refracted Waves	3	https://youtube.com/playlist?list=PL_Lm-6R2w8a1uY7HoU-h-iQeHGySwPPfR
2			L2	Reflection & Refraction Coefficients		
3			L3	Termination of Transmission line with OC & SC		

UNIT IV: Various Factors governing the Performance of Transmission line and Underground Cables

1	II-II	Mr. K. Sravan Kumar	L1	P-F Control	1	https://youtube.com/playlist?list=PL_Lm-6R2w8a1uY7HoU-h-iQeHGySwPPfR
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Name of the Subject: Electrical Measurements

UNIT I: Measuring Instruments

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
1	III-I	Mrs. V.Venkata Laxmi	L1	Introduction to measurements and methods of producing deflecting torque	9	https://youtube.com/playlist?list=PL_Lm-6R2w8a1uIXG0AbpTQ1C1m-0UzNyqs
2			L2	Controlling torque and Methods of producing Controlling Torque		
3			L3	Damping torque		
4		Mr.P.Suresh	L4	Construction and working of PMMC instrument		
5			L5	Construction and working of Moving Iron instrument		
6		Mrs. V.Venkata Laxmi	L6	Extension of Ammeters		
7			L7	Extension of Voltmeters		
8			L8	Errors and Compensation in instruments		
9			L9	Electrostatic Instruments and Instrument Transformers		

UNIT II: Measurement of Power, Energy & Power Factor

1	III-I	Mr.P.Suresh	L1	Measurement of single phase power	8	https://youtube.com/playlist?list=PL_Lm-6R2w8a1uIXG0AbpTQ1C1m-0UzNyqs
2		Mrs. V.Venkata Laxmi	L2	Single phase induction type energy meter		
3		Mr.P.Suresh	L3	Errors in energy meter and 3-phase energy meters		
4			L4	Three phase wattmeter and Extension of range of Wattmeter		
5			L5	Deflecting torque of wattmeter		
6			L6	Ballistic Galvanometer		
7			L7	Flux Meter		
8			L8	Determination of BH curve		

UNIT III: Potentiometers & Magnetic Measurements

1	III-I	Mrs. V.Venkata Laxmi	L1	Potentiometers	1	https://youtube.com/playlist?list=PL_Lm-6R2w8a1uIXG0AbpTQ1C1m-0UzNyqs
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Name of the Subject: Electrical Circuit Analysis-2

UNIT I: Balanced Three phase circuits						
1	II-II	Mr. K.Appala Naidu	L1	Introduction	8	https://youtube.com/playlist?list=PL_Lm-6R2w8a1tu0WurQMHNlQNOmPgXB_H5
2			L2	Phase sequence		
3			L3	Advantages of 3-phase		
4			L4	Analysis of star connection		
5		Mr. T. Rajesh	L5	Analysis of delta connection		
6			L6	Problems on three phase balanced circuits		
7			L7	Measurement of active and reactive power		
8			L8	Problems on three phase balanced circuits		

UNIT II: Unbalanced Three phase circuits

1	II-II	Mr. T. Rajesh	L1	Analysis of 3-phase unbalanced circuits	8	https://youtube.com/playlist?list=PL_Lm-6R2w8a1tu0WurQMHNlQNOmPgXB_H5
2			L2	Star to delta conversion method problem		
3			L3	Loop analysis method problem		
4			L4	Millimons method problem		
5			L5	Measurement of power using two wattmeter method		
6			L6	3-Phase unbalanced problems		
7			L7	Introduction to graph theory		
8			L8	Concepts of different incidence matrices		

UNIT III: Transient Analysis in DC and AC circuits

1	II-II	Mr. T. Rajesh	L1	Introduction to transients	6	https://youtube.com/playlist?list=PL_Lm-6R2w8a1tu0WurQMHNlQNOmPgXB_H5
2			L2	Transient response of RL circuit with DC excitation		
3			L3	Transient response of RC circuit with DC excitation		
4			L4	Transient response of RLC circuit with DC excitation		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content				
5			L5	Numericals part-1	14	https://youtube.com/playlist?list=PL6R2w8a1uKaWIVt7beG2HTB25KDI0E Lm-				
6			L6	Numericals part-2						
Name of the Subject: Digital Electronics										
UNIT I: Numbers System										
1	III-I	Mrs. Y. Swathi	L1	Digital Electronics Course Introduction	14	https://youtube.com/playlist?list=PL6R2w8a1uKaWIVt7beG2HTB25KDI0E Lm-				
2			L2	Number systems part-1						
3			L3	Number systems part-2						
4			L4	Conversions part- 1						
5			L5	Conversions part- 2						
6			L6	Conversions part- 3						
7			L7	Conversions part- 4						
8			L8	Binary arithmetic						
9			L9	Complements(r's, r-1's)						
10			L10	Subtraction using Complements						
11			L11	Signed binary number representation						
12			L12	Signed binary number Addition						
13			L13	Basic Logic gates						
14			L14	Universal gates (NAND, NOR)						
UNIT II: Minimization Techniques										
1	III-I	Mrs. Y. Swathi	L1	Introduction to Minimization techniques	17	https://youtube.com/playlist?list=PL6R2w8a1uKaWIVt7beG2HTB25KDI0E Lm-				
2			L2	Boolean Algebraic laws Part-1						
3			L3	Boolean Algebraic laws part-2						
4			L4	Boolean Algebraic laws part-3						
5			L5	Boolean algebraic Minimization, Examples						
6			L6	Drawbacks of boolean algebra						
7			L7	SOP representation of Boolean expression						
8			L8	POS representation of Boolean Expression						
9			L9	Conversation between SOP and POS form						
10			L10	K- Map minimization in SOP form (3 Variable)						
11			L11	Examples on 3 Variable K map Part-1						
12			L12	Examples on 3 Variable K map Part-2						
13			L13	4 variable K-Map representation and Examples						
14			L14	Don't care combinations in K-Map						
15			L15	POS form representation in K-map						
16			L16	Examples on K-map minimization in POS form						
17			L17	NAND & NOR realization						
UNIT III: Combinational Circuits										
1	III-I	Mrs. B. Sonia	L1	Introduction and half adder	15	https://youtube.com/playlist?list=PL6R2w8a1uKaWIVt7beG2HTB25KDI0E Lm-				
2			L2	Full adder using 2- half adder and 1 OR gate						
3			L3	Full adder using 2- half adder and 1 OR gate						
4			L4	Applications of Full adder						
5			L5	Full subtractor using 2 half subtractor & 1 OR gate						
6			L6	Introduction to Multiplexer						
7			L7	4X1, 8X1 MUX						
8			L8	MUX Implementation						
9			L9	Introduction to DEMUX						
10			L10	DEMUX						
11			L11	ENCODER						
12			L12	DECODER						
13			L13	3bit PARITY checker and generator						
14			L14	4bit PARITY checker and generator						
15			L15	Comparator						

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content				
Name of the Subject: Utilization of Electrical Energy (UEE)										
1 2 3 4 5 6 7 8 9 10	IV-I	Mr. N.Vinay Kumar	L1	Introduction to UEE	10	https://youtube.com/playlist?list=PL6R2w8a1uL8dZTzOVwpolzkXLg6Afh <u>Lm-</u>				
			L2	Applications and types of electric drives						
			L3	Characteristics of Motors						
			L4	Types of industrial loads						
			L5	Speed control of 3-phase induction motor						
			L6	Speed control of DC motors						
			L7	Temperature Raise						
			L8	Cooling of motors						
			L9	Application of electric drives and Types of Loads						
			L10	Load Equalization						
UNIT I: Selection of Motors										
1 2 3 4 5 6 7 8 9 10 11 12	IV-I	Mr.N.Vinay Kumar	L1	Modes of heating	12	https://youtube.com/playlist?list=PL6R2w8a1uL8dZTzOVwpolzkXLg6Afh <u>Lm-</u>				
			L2	Classification of electric heating						
			L3	High frequency heating						
			L4	Electric welding: Resistance						
		Dr.M.V.G.V.Prasad	L5	Resistance welding: Spot and Seam						
			L6	Resistance welding: Butt and Projection						
			L7	Arc Welding Introduction						
			L8	Carbon arc welding						
			L9	Metal arc welding						
			L10	Hydrogen gas welding						
			L11	Inert gas welding and Welding equipment						
			L12	Comparison between AC and DC welding						
UNIT II: Electric Heating										
1 2 3 4 5 6 7 8 9 10 11	IV-I	Mr.N.Vinay Kumar	L1	Illumination	11	https://youtube.com/playlist?list=PL6R2w8a1uL8dZTzOVwpolzkXLg6Afh <u>Lm-</u>				
			L2	Terms used in illumination						
			L3	Carbon arc lamps and Incandescent lamps						
			L4	Gaseous discharge lamps and Sodium vapour lamp						
		Dr.M.V.G.V.Prasad	L5	Mercury vapour discharge lamp						
			L6	Flourescent lamp						
			L7	Comparison between TFL and FT; Basic Principles of light control						
			L8	Various Illumination Methods Introduction						
			L9	Basic Principles of light control; Types of lighting schemes						
			L10	Design of lighting schemes						
			L11	Street lighting						
UNIT III: Illumination Fundamentals & Various Illumination Methods										
1 2 3 4 5 6 7 8 9 10 11	IV-I	Mr.N.Vinay Kumar	L1	Electric traction	6	https://youtube.com/playlist?list=PL6R2w8a1uL8dZTzOVwpolzkXLg6Afh <u>Lm-</u>				
			L2	System of traction						
			L3	Traction electrification						
			L4	Quadrilateral curve analysis						
		Dr.M.V.G.V.Prasad	L5	Trapezoidal curve analysis						
			L6	Types of services						
			L1	Traction effort						
			L2	Traction effort and Power						
			L3	Specific energy consumption part-1						
			L4	Specific energy consumption part-2						
			L5	Adhesive weight, Accelerating weight and Dead weight and coefficient of adhesion						
UNIT IV: Electric Traction – I										
1 2 3 4 5 6	IV-I	Mr.N.Vinay Kumar	L1	Power Semiconductor Devices	5	https://youtube.com/playlist?list=PL6R2w8a1uL8dZTzOVwpolzkXLg6Afh <u>Lm-</u>				
			L2	Diode						
			L3	Transistor						
			L4	IGBT						
			L5	SCR						
			L6	Power MOSFET						
UNIT V: Electric Traction – II										
1 2 3 4 5	IV-I	Dr.M.V.G.V.Prasad	L1	Power Electronics	5	https://youtube.com/playlist?list=PL6R2w8a1uL8dZTzOVwpolzkXLg6Afh <u>Lm-</u>				
			L2	Diode						
			L3	Transistor						
			L4	IGBT						
			L5	SCR						
Name of the Subject: Power Electronics										
UNIT I: Power Semi-Conductor Devices										
1			L1	SCR-working						

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
2	III-I	Mr. K.Ramesh	L2	Formation Depletion layer	11	https://youtube.com/playlist?list=PLlM-6R2w8a1ss-lvADVkd33oOAzrm2sei
3			L3	SCR(VI characteristics)		
4			L4	SCR-Turn ON methods		
5			L5	SCR -Turn ON characteristics		
6			L6	SCR -Turn OFF characteristics		
7			L7	SCR -Protection		
8			L8	R-firing circuit		
9			L9	RC triggering circuit		
10			L10	UJT		
11			L11	UJT as triggering circuit		

UNIT II: AC-DC 1-Phase Controlled Converters

1	III-I	Dr. Pudi sekhar	L1	Single Phase Half Wave Controlled Rectifier with R Load	8	https://youtube.com/playlist?list=PLlM-6R2w8a1ss-lvADVkd33oOAzrm2sei
2			L2	Phase Halfwave Controlled Rectifier with RL load, RL with Freewheeling Diode		
3			L3	Full wave controlled converter with R Load		
4			L4	Fullwave RL Load		
5			L5	Semi converter with RL Load		
6			L6	Effect of source inductance		
7			L7	Three phase full wave controlled rectifier		
8			L8	Phase and thyristor current calculations in three phase converter		

UNIT III: AC-DC 3-Phase Converters

1	III-I	Mr. K.Ramesh	L1	Easy method to draw three phase waveform	4	https://youtube.com/playlist?list=PLlM-6R2w8a1ss-lvADVkd33oOAzrm2sei
2			L2	3phase half wave diode rectifier		
3			L3	Half wave controlled rectifier		
4			L4	Three Phase full wave diode rectifier		

UNIT IV: Switched Mode DC-DC Converters

1	III-I	Mr. K.Ramesh	L1	Stepdown Cyclo Converter part-1	5	https://youtube.com/playlist?list=PLlM-6R2w8a1ss-lvADVkd33oOAzrm2sei
2			L2	Stepdown Cyclo Converter part-2		
3			L3	Stepup Cyclo Converter		
4			L4	AC voltage controller- R Load		
5			L5	AC voltage controller- RL Load		

Name of the Subject: Power System Operation and Control

UNIT I: Introduction

1	IV-I	Mr. G.Srinivasa Reddy	L1	Introduction to Economic Load Dispatch	8	https://youtube.com/playlist?list=PLlM-6R2w8a1ss-lvADVkd33oOAzrm2sei
2			L2	Input Output Cost Characterization		
3			L3	Co ordination Equation without loss		
4			L4	Co ordination with losses		
5			L5	Solution by direct method		
6			L6	Solution by lambda iteration method		
7			L7	Optimal Hydro Thermal Scheduling		
8			L8	Numerical on Optimal Hydrothermal Scheduling		

Name of the Subject: Distributed Generation and Microgrids

UNIT I: Interconnection Issues and standards of DGs

1	IV-I	Dr.S.Ramu	L1	Course Introduction	7	https://youtube.com/playlist?list=PLlM-6R2w8a1ss-lvADVkd33oOAzrm2sei
2			L2	Distributed generation		
3			L3	Distributed energy resources		
4			L4	IEEE 1547 standards		
5			L5	DG installation classes, security issues in DG implementations		
6			L6	Islanding & non-islanding system		
7			L7	Grid code		

UNIT II: Operational features of grid connected DG systems

1			L1	Impact of DG integration, DG integration schemes
2			L2	Integration and interconnection issues

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
3	IV-I	Dr.S.Ramu	L3	Key interconnection requirements, Power quality	6	https://youtube.com/playlist?list=PL6R2w8a1taCbokEBIEUpC5vEhJ87iv
4			L4	Protection issues		
5			L5	Grid interconnection issues of various DG systems		
6			L6	Stability and power quality issues involved in grid connected operation of various DGs		

Name of the Subject: Switchgear and Protection

UNIT I: Circuit Breakers

1	Mr. K. Avinash	L1	Introduction of SGP course	13	https://youtube.com/playlist?list=PL6R2w8a1u3WlZqlJeuACbqefrxexLi
2		L2	Arc Voltage, ARC interruption, Restriking Voltage and Recovery Voltage		
3		L3	Types of Restriking voltage and its corresponding problems		
4		L4	Expression for Restriking Voltage and RRRV		
5		L5	Resistance Switching		
6		L6	Current Chopping		
7	Mr.K.Pavan Kumar	L7	Air blast CB	13	https://youtube.com/playlist?list=PL6R2w8a1u3WlZqlJeuACbqefrxexLi
8		L8	Oil circuit breakers		
9		L9	SF6 Circuit breaker		
10		L10	Vacuum Circuit breakers		
11		L11	Circuit breaker ratings		
12		L12	Miniature Circuit Breaker(MCB) operation		
13		L13	Working of MCCB, MPCB, ELCB and RCCB		

UNIT II: Electromagnetic Protection

1	Mr.K.Pavan Kumar	L1	Relay Classification	17	https://youtube.com/playlist?list=PL6R2w8a1u3WlZqlJeuACbqefrxexLi
2		L2	Electro-magnetic Attraction type relays part-1		
3		L3	Electro-magnetic Attraction type relays part-2		
4		L4	Working principle of Induction type relays		
5		L5	Types of Induction relays		
6		L6	Induction type Non directional Over current relays		
7		L7	Types of relays based on its operating time		
8		L8	Problems on operating time of relays		
9		L9	Directional over current relay		
10		L10	Relay connections for directional over current relays		
11		L11	Differential relays		
12		L12	Percentage differential relays		
13		L13	Universal Torque Equation		
14		L14	Distance relays		
15		L15	Impedance type distance relays		
16		L16	Reactance type distance relays		
17		L17	Mho type Distance relays		

UNIT III: Generator Protection

1	Mr. K. Avinash	L1	Alternator protection-Types of Faults	9	https://youtube.com/playlist?list=PL6R2w8a1u3WlZqlJeuACbqefrxexLi
2		L2	Simple differential protection of Alternator		
3		L3	Modified Differential protection of Alternator		
4		L4	Merz-price Protection of Alternator		
5		L5	Balanced or Restricted Earth fault protection of Alternator		
6		L6	Stator Inter-turn fault protection of Alternator		
7		L7	Negative Sequence protection against Unbalanced Loading of Alternator		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content				
8			L8	Rotor Fault Protection of Alternator						
9			L9	Protection OF BUSBARS						
Name of the Subject: Programmable Logic Controller										
UNIT I: PLC Basics										
1	IV-I	Dr.B. Arundathi	L1	Introduction to PLC system	10	https://youtube.com/playlist?list=PL1CwELrzua7IUGkDXYYk3F6WULbxcsYap				
2			L2	Processor & IO module						
3		Dr.B.Prasad Rao	L3	Architecture of PLC		https://youtube.com/playlist?list=PL1CwELrzua7IUGkDXYYk3F6WULbxcsYap				
4			L4	Advantages of PLC						
5		Dr.B.Prasad Rao	L5	Devices Connected to Input and Output Modules		https://youtube.com/playlist?list=PLsWomvD79EgXw3zFdc-GRSdBa7lhCKOI				
6			L6	Input Devices						
7			L7	Input/Output devices part-1						
8			L8	Input/Output devices part-2						
9		Dr.B. Arundathi	L9	Introduction of DOL starter		https://youtube.com/playlist?list=PL1CwELrzua7IUGkDXYYk3F6WULbxcsYap				
10			L10	Examples using contacts & coil						
UNIT II: PLC Programming										
1	IV-I	Dr.B.Prasad Rao	L1	Introduction to PLC Programming	8	https://youtube.com/playlist?list=PLsWomvD79EgX8bePgNYUzaKOCjIkK				
2			L2	PLC Programming						
3			L3	PLC Ladder Programming part-1						
4			L4	PLC Ladder Programming part-2						
5			L5	PLC Ladder Programming part-3						
6			L6	PLC Ladder Programming part-4						
7			L7	PLC Digital Logic Gates						
8			L8	PLC Boolean algebra						
UNIT III: Programmable Timers and Counters										
1	IV-I	Dr.B.Prasad Rao	L1	Timer Instructions	6	https://youtube.com/playlist?list=PLsWomvD79EgUA9PVukeCvngOAJxwFnOXF				
2			L2	Timer Applications part-1						
3			L3	Timer Applications part-2						
4			L4	Counter Instructions						
5			L5	Counter Applications						
6			L6	Combination of Timer and Counter Applications						
UNIT IV: Program control and other instructions										
1	IV-I	Dr.B.Prasad Rao	L1	Master control reset and Jump Instructions	5	https://youtube.com/playlist?list=PLsWomvD79EgXubgeVzTgMw9hkYSnXhPTx				
2			L2	Data Manipulation Instructions Part-1						
3			L3	Data Manipulation Instructions Part-2						
4			L4	Data Manipulation Instructions Part-3						
5			L5	Sequential & Shift Instructions						
Name of the Subject: Electrical Machines-1										
UNIT I: Introduction to DC machines										
1	II-I	Dr.S.Ravi Shankar Rai	L1	Construction of a DC Machine	18	https://youtube.com/playlist?list=PLySs6IYFTdXUXAohhBfbwMhjXct8-N6QB				
2			L2	Principle of Operation of a DC Generator						
3			L3	Armature Windings in a DC Machines						
4			L4	Classification of DC Generators.						
5			L5	Losses in a DC machine						
6			L6	Power Stage Diagram of a DC Generator						
7			L7	Armature Reaction in a DC Machine.						
8			L8	Commutation in DC Machine Part 1						
9			L9	Commutation in DC Machine Part 2						
10			L10	Characteristics of a DC Shunt generator-Part 1						
11			L11	Characteristics of a DC Shunt generator-Part 2						
12			L12	Numerical : DC Generator Part-1						
13			L13	Numerical : DC Generator Part-2						
14			L14	Numerical : DC Generator Part-3						
15		Dr.K.K.Deepika	L15	Principle of Operation of DC Motor						
16		Dr.S.Ravi Shankar Rai	L16	Classification of DC Motors						
17			L17	Power stage diagram of DC motor						

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
18			L18	Characteristics of DC Motors		
UNIT II: Performance and testing of D.C. Machines						
1	II-I	Dr.S.Ravi Shankar Rai	L1	Speed Control of DC Shunt Motor	7	https://youtube.com/playlist?list=PLySs6IYFTdXUXAohhBfbwMhjXct8-N6QB
2			L2	Speed Control of DC Series Motor		
3			L3	Numericals on Speed control of DC Shunt, series motors		
4			L4	3-point Starter		
5			L5	Swinburne's Test on a DC Motor.		
6			L6	Brake Test on a DC Shunt Motor		
7			L7	Retardation Test on DC Shunt Motor		
UNIT III: Single-phase Transformers						
1	II-I	Dr.S.Ravi Shankar Rai	L1	Principle of Operation of a Transformer	12	https://youtube.com/playlist?list=PLySs6IYFTdXUXAohhBfbwMhjXct8-N6QB
2			L2	EMF Equation of a Transformer		
3			L3	Phasor Diagram of a Transformer: NO-LOAD		
4			L4	Transformer :ON-LOAD		
5			L5	Phasor Diagram of a Transformer:ON-LOAD		
6			L6	Equivalent Circuit of Transformer		
7			L7	Loss in Transformer		
8			L8	Numerical on Transformers Part 1		
9			L9	Efficiency and Voltage Regulation of Transformer		
10			L10	All Day Efficiency of Transformer		
11			L11	Per Unit Values Calculation of Transformer		
12			L12	Maximum and Zero Voltage Regulation		
UNIT IV: Single-phase Transformers Testing						
1	II-I	Dr.S.Ravi Shankar Rai	L1	Transformer Testings	7	https://youtube.com/playlist?list=PLySs6IYFTdXUXAohhBfbwMhjXct8-N6QB
2			L2	Open and Short Circuit Test on Transformer		
3			L3	Numerical on OC and SC test on Transformer		
4			L4	Sumpner's Test on pair of Transformers		
5			L5	Separation of Losses in Transformer		
6			L6	Numerical on Transformer Part 2		
7			L7	Effect of Variation in Frequency and Supply Voltage on Transformer Losses		
UNIT V: Auto transformers and 3-Phase Transformers						
1	II-I	Dr.S.Ravi Shankar Rai	L1	Parallel Operation of Transformers	7	https://youtube.com/playlist?list=PLySs6IYFTdXUXAohhBfbwMhjXct8-N6QB
2			L2	Principle of Operation of an Auto-Transformer		
3			L3	Construction OF 3.Ph. Transformers		
4			L4	3 Ph Transformer Connectiones		
5			L5	Tapping on Transformers		
6			L6	Open Delta Connection of 3 Ph. Transformer		
7			L7	Numerical on 3-Ph Transformers		



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DEPARTMENT OF CIVIL ENGINEERING

Digital Content Developed by Faculty during Academic Year 2020-2021

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
Name of the Subject: Complex Variables and Statistical Methods						
UNIT I: Functions of Complex Variables						
1	II-I	Dr. M Lakshmi Soujanya	L1	Introduction	10	http://bit.ly/cvsm_me
2			L2	Complex Functions		
3			L3	Limits		
4			L4	Continuity		
5			L5	Differentiability and Analyticity		
6			L6	Laplace Equations		
7			L7	Polar forms of CR Equations		
8			L8	Problems on CR Equations		
9			L9	Problems on CR Equations		
10			L10	Harmonic Conjugate Functions		
UNIT II: Complex Integration						
11	II-I	Mrs. Sri Ramani	L1	Line Integrals	11	http://bit.ly/cvsm_me
12			L2	Line Integrals Problems		
13			L3	Cauchy Integral Theorem		
14			L4	Cauchy Integral Problems		
15			L5	Laurent, Tayors and Types of Singularities		
16		Mrs. S Suneeha Devi	L6	Residue		
17			L7	Residue Theorem		
18		Mrs. S Indira	L8	Random Variables Introduction		
19			L9	Expectation Properties		
20			L10	Discrete problems		
21			L11	Continuous Problems		
UNIT III: Distributions						
22	II-I	Mrs. N Ramya	L1	Binomial Distributions	8	http://bit.ly/cvsm_me
23			L2	Poisson Distributions		
24			L3	Normal Distributions Introduction		
25			L4	Normal Distributions Problems		
26			L5	Sample Distribution Introduction		
27			L6	Estimation Introduction		
28			L7	Estimation Problems		
29			L8	Estimation Problems		
UNIT IV: Testing of Hypothesis						
25			L1	Testing of Hypothesis Introduction		
26			L2	Large Sample Introduction and Single Mean Problems		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content				
27	II-I	Mrs. N Ramya	L3	Two mean and single proportion problems	10	http://bit.ly/cvsm_me				
28			L4	Two proportion problems						
29			L5	Test introduction and single mean problems						
30			L6	Two mean problems						
31			L7	Paired Test Problems						
32			L8	Variance Introduction and Problems						
33			L9	Attributes Introduction and Problems						
34			L10	Goodness of Fit Problems						
UNIT V: Regressions and Correlations										
40			L1	Correlation Introduction						
41			L2	Correlation Problems						
42			L3	Rank Correlation Problems						
43			L4	Regression Introduction						
44			L5	Regression Problems						
45			L6	Angle between regressions						
46			L7	Multiple regression						

Name of the Subject: Surveying

UNIT I:

1	II-I	Ms. T Geeta Rani	L1	Concept & Terminology of Levelling	7	https://www.youtube.com/watch?v=k1wnzguEjl
2			L2	Instruments Used in Levelling		https://www.youtube.com/watch?v=gU_yAtoP6Rk
3			L3	Temporary & Permanent Adjustments of Level		https://www.youtube.com/watch?v=tB05Z4J7gBk
4			L4	Methods of Levelling		https://www.youtube.com/watch?v=vwphwAcUT
5			L5	Booking & Reducing Levelling		https://www.youtube.com/watch?v=0IRGgb3ynQw
6			L6	Characteristics and Uses of Contours		https://www.youtube.com/watch?v=nzkSU7bi7kl
7			L7	Methods of Contouring		https://www.youtube.com/watch?v=7RsrFXNu66A

UNIT II: Leveling and Contouring

8			L1	Concept & Terminology of Levelling		https://www.youtube.com/watch?v=k1wnzguEjl
9			L2	Instruments Used in Levelling		https://www.youtube.com/watch?v=gU_yAtoP6Rk
10			L3	Temporary & Permanent Adjustments of Level		https://www.youtube.com/watch?v=tB05Z4J7gBk

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
11	II-I	Ms. T Geeta Rani	L4	Methods of Levelling	7	https://www.youtube.com/watch?v=vwphwAcUT64
12			L5	Booking & Reducing Levelling		https://www.youtube.com/watch?v=0IRGgb3ynQw
13			L6	Characterics and Usesof Contours		https://www.youtube.com/watch?v=nzkSU7bi7kl
14			L7	Methods of Contouring		https://www.youtube.com/watch?v=7RsrfXNu66A
UNIT III: Areas and Volumes						
15	II-I	Ms. T Geeta Rani	L1	Calculation of Areas	6	https://www.youtube.com/watch?v=PuU144vRvj4
16			L2	Calculation of Area Part 2		https://www.youtube.com/watch?v=Ax3SmBpnMr0
17			L3	Calculation of Areas Problems		https://www.youtube.com/watch?v=Ut19sf9WG9k
18			L4	volume of one and two level sections		https://www.youtube.com/watch?v=-gJNy_DDcO4
19			L5	Volume of leveled and Two Leveled Sections		https://www.youtube.com/watch?v=zXI6GxvCtIU
20			L6	Determination of volume of Embankment and Barrow Pits		https://www.youtube.com/watch?v=k_1ZuoksPew
UNIT IV: Theodolite						
21	II-I	Ms. T Geeta Rani	L1	Introduction to theodolite	6	https://www.youtube.com/watch?v=mhknsvqf16U
22			L2	Terminology & Adjustments of Theodolite		https://www.youtube.com/watch?v=tK80kg0-H90
23			L3	Measurement of Horizontal & Vertical Angles		https://www.youtube.com/watch?v=7aQDpGYRzTE
24			L4	Trigonometric Levelling Part -1		https://www.youtube.com/watch?v=X7T-0RyfXgw
25			L5	Trigonometric Levelling Part -2		https://www.youtube.com/watch?v=P-2tShZjHKQ
26			L6	Tacheometric Surveying - Tangential Method		https://www.youtube.com/watch?v=2mFOLCRr8is
UNIT V: Curves and GIS Appliations						
27	II-I	Ms. T Geeta Rani	L1	Design & Settingout Compund Curve	4	https://www.youtube.com/watch?v=YQU9dy7fugq
28			L2	Total station		https://www.youtube.com/watch?v=itkVs-6wYqA
29		Mrs. M Leela Priyanka	L3	GIS Applications		https://youtu.be/xhb_No5aKyl
30			L4	Key Components of GIS		https://www.youtube.com/watch?v=vbLdQiWh9Rs&t=13s

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
Name of the Subject: Strength of Materials						
UNIT I & II: Beams						
1	II-I Mr. K Satya Eshwar		L1	Cantilever Beam Subjected to U.D.L Over The Entire Span	16	https://youtube.com/playlist?list=PLhinpjdiLEiVkiZKH05slaqReOnQ4_D
2			L2	Beam and Loads Acting on it.		
3			L3	Types Of Supports And Their Reactions		
4			L4	Classification of Beams Based on Supports.		
5			L5	Shear force diagram and bending moment diagram		
6			L6	Simply supported beam subjected to point load at mid span		
7			L7	Simply supported beam subjected to UDL over the entire span		
8			L8	Cantilever beam subjected to point load at the free end		
9			L9	Simply supoorted beam example-1		
10			L10	Simply supoorted beam example-2		
11			L11	Simply supoorted beam subjected to a couple at mid span		
12			L12	Cantilever beam: Example -1		
13			L13	Cantilever beam: Example -2		
14			L14	Over Hanging beam		
15			L15	Point of contraflexure		
16			L16	Relation between lead, shear force and bending moment		
UNIT III: Flexural stresses and Shear Stresses						
17	II-I Mr. K Satya Eshwar		L1	Flexural Equation	13	https://www.youtube.com/playlist?list=PLhinpjdiLEiVkiZHdJlYdj0tSDhFpkwOMs0e
18			L2	Shear Stress Distribution Derivation		
19			L3	Shear Stresses Distribution over the beam of rectangular cross section		
20			L4	Shear Stresses Distribution over the beam of circular cross section		
21			L5	Torsion problem on flexural stresses		
22			L6	Torsion problem on flexural stresses		
23			L7	Introduction to bending stresses		
24			L8	secrion modulud		
25			L9	shear stresses distibution over triangular cross section		
26			L10	Flexural Stresses		
27			L11	Assumptions made in flexural equation		
28			L12	Problem on flexural stresses		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
29			L13	Problem on flexural stresses		
UNIT IV: Deflections of Beams						
30	II-I	Mr. K Satya Eshwar	L1	Double Integration Method	7	https://www.youtube.com/playlist?list=PLhinpidiLEiXDWgqSWfRRlullzU9-6BC-
31			L2	Deflection of Cantilever Beam with point load at free end		
32			L3	Deflection of Cantilever Beam with UDL over the entire span		
33			L4	Deflection of Simply supported Beam with point load at mid span		
34			L5	Deflection of Simply supported Beam with UDL over the entire span		
35			L6	introduction to deflection of beam		
36			L7	Differential equations of the ealstic curve of a beam		

UNIT V: Torsion, Columns and Struts

37	II-I	Mr. K Satya Eshwar	L1	Introduction to Torsion Concept	5	https://www.youtube.com/playlist?list=PLhinpidiLEiVLo3NBgKBUSKp7R3fqyZY6
38			L2	Torsion Derivation		
39			L3	Polar Modulus and Torsional Modulus		
40			L4	Modes of Failure Column		
41			L5	Euler's Theory Inroduction		

Name of the Subject: Building Planning and drawing

UNIT I:

1	II-I	Mrs A Satyaveni	L1	Intorduction to bpd	6	https://youtu.be/B-SO_qRUs5M https://youtu.be/tXkMvWjVYEI https://youtu.be/bMVPIUf0Fdo https://youtu.be/oc73R7Q-zyl https://youtu.be/gDMh8pF5RUk https://youtu.be/YUSoigOARU
2			L2	Terminology		
3			L3	Building bye-laws		
4			L4	Aspects of building bye-laws		
5			L5	Aspects of building bye-laws		
6			L6	Types of buildings		

UNIT II:

7	II-I	Mrs A Satyaveni	L1	Orientation of a building	8	https://youtu.be/bUwoeuygONM https://youtu.be/_2RYK74wqyY https://youtu.be/jobqu-3nZAU https://youtu.be/GnObJL9UHVU https://youtu.be/EtyyrKQU3rM https://youtu.be/hBl6GA_Ypgg https://youtu.be/NLZUyXKycNs
8			L2	Types of residential building		
9			L3	Site selection		
10			L4	Minimum standards for residential building		
11			L5	Planning of residential building		
12			L6	Requirements of different rooms in residential buildings		
13			L7	Planning of hotel		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content			
14			L8	Planning of educational building		https://youtu.be/bH3wHhw5S18			
UNIT III:									
15	II-I	Mrs A Satyaveni	L1	Types of brick bonds	5	https://youtu.be/Tf4GOOh9cJmo			
16			L2	English bond one and one and a half brick		https://youtu.be/nCR4PzynDK0			
17			L3	English bond to brick wall & Flemish bond 1 brick wall		https://youtu.be/TTtpTFW0m7I			
18			L4	Flemish bond		https://youtu.be/Ypnv7Jbbv2w			
19			L5	Sign conventions		https://youtu.be/BloG36aYeGc			
UNIT IV:									
20	II-I	Mrs A Satyaveni	L1	Types of doors, windows and roofs	8	https://youtu.be/UCDbnjczpQ			
21			L2	Glazed door		https://youtu.be/kH52OFzjE			
22			L3	Panneled door		https://youtu.be/rwTbEcAZM			
23			L4	Collar roof and couple roof		https://youtu.be/r9XaZuibGao			
24			L5	Queen post truss		https://youtu.be/eq582XZNuO			
25			L6	King post truss		https://youtu.be/CDnsVYoO-JM			
26			L7	Closed couple roof with collar		https://youtu.be/u76Iy5f1pis			
27			L8	Paneled and glazed door		https://youtu.be/0mVOeOyCgnw			
UNIT V:									
28	II-I	Mrs A Satyaveni	L1	Types of buildings	4	https://youtu.be/YUSoigOARU			
29			L2	Drawing of residential building		https://www.youtube.com/watch?v=pFop9WfeDyM			
30			L3	Drawing of public building		https://youtu.be/k3zwaSTtU5o			
31			L4	Flat roof and closed roof buildings		https://youtu.be/M4h_UQw_sMnM			
Name of the Subject: Managerial Economics & Financial Analysis									
UNIT I:									
1			L1	INTRODUCTION TO MANAGERIAL ECONOMICS		https://youtu.be/SpqDiWe x4Eg			
2			L2	NATURE, SCOPE AND REALTIONSHIP OF MANAGERIAL ECONOMICS		https://youtu.be/KoDJJrafWJg			
3			L3	CONCEPT OF DEMAND AND TYPES		https://youtu.be/_uIABS-ihMc			

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
4	III-I	Mrs. Auadhati Datta	L4	LAW OF DEMAND AND EXCEPTIONS	8	https://youtu.be/rK9PAYQLHMY
5			L5	ELASTICITY OF DEMAND AND TYPES		https://youtu.be/iwbZ1tA9Ofw
6			L6	MEASUREMENTS OF ELASTICITY OF DEMAND		https://youtu.be/4CLqQvc7ud8
7			L7	DEMAND FORECASTING AND METHODS		https://youtu.be/zuGsFgizv3o
8			L8	PRICE INDICES		https://youtu.be/vvuABrEXzlg

UNIT II:

9	III-I	Mrs. Auadhati Datta	L1	COBB DOUGLAS AND LEONTIEF PRODUCTION FUNCTION	8	https://youtu.be/Cb6qA2hcEm4
10			L2	LAW OF VARIABLE PROPORTION		https://youtu.be/KVsGmhsQkXA
11			L3	ISOQUANT AND ISOCOST		https://youtu.be/naQ-5FaVAAU
12			L4	LAW OF RETURNS TO SCALE		https://youtu.be/gtsE82uyZj0
13			L5	ECONOMIES AND DISECONOMIES TO SCALE		https://youtu.be/4zhsQnQx5W0
14			L6	COST CONCEPTS AND TYPES		https://youtu.be/QEG5YT06M7w
15			L7	COST OUTPUT RELATIONSHIP IN SHORT AND LONG RUN		https://youtu.be/ucz3TuSw2M
16			L8	BREAK EVEN ANALYSIS WITH SIMPLE PROBLEMS		https://youtu.be/ttCa9mWJ-xE

UNIT III:

17	III-I	Mrs. K V S Pranveena	L1	Introduction to Markets	7	https://youtu.be/sq5kxEHDkE
18			L2	Perfect Competition		https://youtu.be/3LvSBNuAes
19			L3	Monopoly Competition		https://youtu.be/GdEuNiCWNyU
20			L4	Monopolistic Competition		https://youtu.be/P8guHKFuP4
21			L5	Oligopoly Competition		https://youtu.be/xQUWwT7J4Kw
22			L6	Theories of the Firm		https://youtu.be/xFnLMgsawpc
23			L7	PRICING POLICY		https://youtu.be/2RiAU7Vbtr4

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
UNIT IV:						
24	III-I	Mr. V Shivajee	L1	SOLE PROPRIETORSHIP	5	https://youtu.be/L4oys0Ch2k
25			L2	PARTNERSHIP		https://youtu.be/c78hkPUtbhM
26			L3	JOINT STOCK COMPANY		https://youtu.be/Y6rMLphs-QU
27			L4	PUBLIC ENTERPRISES		https://youtu.be/eFA8CbNaVu8
28			L5	BUSINESS CYCLE		https://youtu.be/UNLRRrG-7IM
UNIT V:						
29	III-I	Dr. P Sanyasi Naidu	L1	INTRODUCTION OF ACCOUNTIONG	12	https://youtu.be/qJ7H2R9W_Ck
30			L2	Principle of Accounting, systems of accounting		https://youtu.be/fMHkOoW9g50
31			L3	Account and the concept of accounting cycle		https://youtu.be/nGoDGQVb8co
32			L4	PREPARATION OF JOURNALS		https://youtu.be/aLj4f7hFXp4
33			L5	PREPARATION OF JOURNALS WITH EXAMPLE		https://youtu.be/33u8KyDejeQ
34			L6	PREPARATION OF JOURNALS AND LEDGERS		https://youtu.be/2FUDwP-daaA
35			L7	PREPARATION OF FINANCIAL STSTMENTS		https://youtu.be/SclXhiPOvM
36			L8	PREPARATION OF FINANCIAL STATEMENTS WITH ADJUSTMENTS		https://youtu.be/ulfSCC9QtDU
37		Dr. T Archana Acharya	L9	WHAT IS CAPITAL?, INTRODUCTION TO CAPITAL BUDGETING ESTIMATION OF CASH IN FLOWS		https://youtu.be/7-Vtf27KhN4
38			L10	PAY BACK PERIOD, ACCOUNTING RATE OF RETURN		https://youtu.be/4y8bxkbFgwM
39			L11	TIME VALUE OF MONEY		https://youtu.be/DLykRqHi_iuk

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
40			L12	NET PRESENT VALUE, INTERNAL RATE OF RETURN, PROFITABILITY INDEX		https://youtu.be/_UYuRRSWpXM

Name of the Subject: Structural Analysis -II

UNIT I:

1	III-I	Dr. Pritam hait	L1	Introduction to three hinged and two hinged Arches	7	https://youtu.be/wODY7WUwtv0
2			L2	Temperature effect on two hinged arch numerical problem		https://youtu.be/FWmnnoPZB-A
3			L3	Two hinged arch		https://youtu.be/WK8rr0PLp4g
4			L4	Bending moment and horizontal thrust numerical problem of two hinged arch		https://youtu.be/0MVzoTBVhiw
5			L5	Temperature effect on three hinged arch		https://youtu.be/r4OVZxpHooA
6			L6	Three hinged arch numerical problem		https://youtu.be/lz7nzbQ_QFU
7			L7	Normal thrust, radial shear and rib shortening		https://youtu.be/HGXf1KG1Vc8

UNIT II:

8	III-I	Dr. Pritam hait	L1	Introduction to cable structure	6	https://youtu.be/l9lrODJDcQ4
9			L2	Uniformly distributed load on cord		https://youtu.be/UJewWpVkJY
10			L3	Cable under temperature stress		https://youtu.be/YARQfeze5eNw
11			L4	Three hinged stiffening girder derivation		https://youtu.be/XWb7nFYoOQw
12			L5	Three hinged stiffening girder problem		https://youtu.be/CDWUn7-Yp9g
13			L6	Numerical problems on cable structures		https://youtu.be/x8LMjpRzkAw

UNIT III:

14	III-I	Dr. Pritam hait	L1	Lateral Load Analysis Using Approximate Method	2	https://youtu.be/KTK7tkrto0Q
15			L2	Lateral Load Analysis Using Approximate Method		https://youtu.be/M8DlyOXvCO

UNIT IV:

16			L1	Introduction to Moment distribution and Kani's method		https://youtu.be/ejU0qpAt6EM
17			L2	Moment distribution method		https://youtu.be/RoFILTqabTQ
18			L3	Moment distribution with Sinking support		https://youtu.be/vorHAP1WgKU

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
19	III-I	Dr. Pritam hait	L4	Moment distribution method for portal frame	7	https://youtu.be/FbSgD3INirY
20			L5	Kani's method		https://youtu.be/Jt5O2UiHnws
21			L6	Introduction to sway analysis		https://youtu.be/80qlVUile_g
22			L7	Sway and non sway analysis numerical problem		https://youtu.be/i84COpSz_nLc

UNIT V:

23	III-I	Dr. Pritam hait	L1	Stiffness Matrix	2	https://youtu.be/JCNSbE4mHSE
24			L2	Stiffness Matrix		https://youtu.be/k2xFfnIx5gs

Name of the Subject: Design of Reinforced Concrete Structures

UNIT I:

1	III-I S. Kranthi Vijaya		L1	Introduction to RCC	6	https://www.youtube.com/watch?v=wUjTDmzsChY&list=PLYzWtXZJPJpxJyAfwfZ96dYqPu62y6XdY
2			L2	Structural design		https://www.youtube.com/watch?v=3MLSiaBIOuE&list=PLYzWtXZJPJpxJyAfwfZ96dYqPu62y6XdY&index=2
3			L3	Working stress method, ULM		https://www.youtube.com/watch?v=ZxpmW17yWY&list=PLYzWtXZJPJpxJyAfwfZ96dYqPu62y6XdY&index=3
4			L4	Limit state method		https://www.youtube.com/watch?v=Nwv5lIH5GkI&list=PLYzWtXZJPJpxJyAfwfZ96dYqPu62y6XdY&index=5
5			L5	Assumptions in limit state method		https://www.youtube.com/watch?v=lYbo-4oLp3c&list=PLYzWtXZJPJpxJyAfwfZ96dYqPu62y6XdY&index=4
6			L6	Neutral axis depth, moment of resistance		https://www.youtube.com/watch?v=mfnScwae1KM&list=PLYzWtXZJPJpxJyAfwfZ96dYqPu62y6XdY&index=6

UNIT II:

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
7	III-I S. Kranthi Vijaya		L1	Introduction to beams	14	https://www.youtube.com/watch?v=wmS1YRPyzf8&list=PLYzWtXZJPJpyxFxW5Wm8Pzy8vwRqmkMGr&index=1 <u>x=1</u>
8			L2	Types of beam sections		https://www.youtube.com/watch?v=obO12gX6Ht0&list=PLYzWtXZJPJpyxFxW5Wm8Pzy8vwRqmkMGr&index=2 <u>x=3</u>
9			L3	Analysis of singly reinforced beams		https://www.youtube.com/watch?v=UZXBd7NItFU&list=PLYzWtXZJPJpyxFxW5Wm8Pzy8vwRqmkMGr&index=3 <u>x=2</u>
10			L4	Limiting depth of NA & limiting MOR		https://www.youtube.com/watch?v=MYZ1RWAB5h8&list=PLYzWtXZJPJpyxFxW5Wm8Pzy8vwRqmkMGr&index=4
11			L5	Problem on analysis of singly reinforced beams		https://www.youtube.com/watch?v=lkZFzWWQo78&list=PLYzWtXZJPJpyxFxW5Wm8Pzy8vwRqmkMGr&index=5 <u>x=5</u>
12			L6	Problem on design of singly reinforced beams		https://www.youtube.com/watch?v=Eg5jPaEl9E0&list=PLYzWtXZJPJpyxFxW5Wm8Pzy8vwRqmkMGr&index=6
13			L7	Introduction to doubly reinforced beams		https://www.youtube.com/watch?v=bqS2gRUhV9g&list=PLYzWtXZJPJpyxFxW5Wm8Pzy8vwRqmkMGr&index=7 <u>x=7</u>
14			L8	Analysis of doubly reinforced beam section		https://www.youtube.com/watch?v=9AZZ_ucfSus&list=PLYzWtXZJPJpyxFxW5Wm8Pzy8vwRqmkMGr&index=8 <u>x=8</u>
15			L9	Problem on analysis of doubly reinforced beams		https://www.youtube.com/watch?v=sNVyTzl95kU&list=PLYzWtXZJPJpyxFxW5Wm8Pzy8vwRqmkMGr&index=9 <u>x=9</u>

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
16			L10	Problem on design of doubly reinforced beams		https://www.youtube.com/watch?v=cR0uO26nHQ8&list=PLYzWtXZJPJpyxFxW5Wm8Pzy8vwRqmkMGr&index=10
17			L11	Introduction to flanged beams		https://www.youtube.com/watch?v=jz45rmTBzk&list=PLYzWtXZJPJpyxFxW5Wm8Pzy8vwRqmkMGr&index=11
18			L12	Analysis of flanged beams		https://www.youtube.com/watch?v=HYbxGKJ9M&list=PLYzWtXZJPJpyxFxW5Wm8Pzy8vwRqmkMGr&index=12
19			L13	Problem on flanged beams 1		https://www.youtube.com/watch?v=BbUil3nyGFI&list=PLYzWtXZJPJpyxFxW5Wm8Pzy8vwRqmkMGr&index=13
20			L14	Problem on flanged beams 2		https://www.youtube.com/watch?v=DsIVnXBWR3o&list=PLYzWtXZJPJpyxFxW5Wm8Pzy8vwRqmkMGr&index=14

UNIT III:

21			L1	Introduction to shear		https://www.youtube.com/watch?v=izDfxNmYPPs&list=PLYzWtXZJPJpydo6Q_7vRUhKWGPSQwsPd9&index=1
22			L2	IS 456: 2000 recommendations for shear reinforcement		https://www.youtube.com/watch?v=w6tPg90rNLk&list=PLYzWtXZJPJpydo6Q_7vRUhKWGPSQwsPd9&index=2
23			L3	Problem on design of shear reinforcement		https://www.youtube.com/watch?v=QV8gL2mjN54&list=PLYzWtXZJPJpydo6Q_7vRUhKWGPSQwsPd9&index=3
24			L4	Problem on design of RCC beam for shear		https://www.youtube.com/watch?v=wuPL6iCorOE&list=PLYzWtXZJPJpydo6Q_7vRUhKWGPSQwsPd9&index=4

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
25	III-I S. Kranthi Vijaya		L5	Introduction to torsion in beams	5	https://www.youtube.com/watch?v=qFfFXpBn94Q&list=PLYzWtXZJPJpydo6Q_7vRUhKWGPSQwsPd9&index=5
26			L6	Problem on design of torsional reinforcement		https://www.youtube.com/watch?v=TAjdUSuC5Dl&list=PLYzWtXZJPJpydo6Q_7vRUhKWGPSQwsPd9&index=6
27			L7	Introduction to bond, anchorage and development length		https://www.youtube.com/watch?v=gL_zURAEEAU&list=PLYzWtXZJPJpydo6Q_7vRUhKWGPSQwsPd9&index=7
28			L8	Problem on development length		https://www.youtube.com/watch?v=nT2G1UN12pA&list=PLYzWtXZJPJpydo6Q_7vRUhKWGPSQwsPd9&index=8

UNIT IV:

29	III-I S. Kranthi Vijaya		L1	Introduction to one way slab	6	https://www.youtube.com/watch?v=fq4RyVueVDU&list=PLYzWtXZJPJpxEgX5ut1bDegm3aBXtRu64&index=1
30			L2	Problem on design of one way slab		https://www.youtube.com/watch?v=B88-RksU7Wc&list=PLYzWtXZJPJpxEgX5ut1bDegm3aBXtRu64&index=2
31			L3	Problem on design of continuous one way slab		https://www.youtube.com/watch?v=pp0IIEc4XbQ&list=PLYzWtXZJPJpxEgX5ut1bDegm3aBXtRu64&index=3
32			L4	Introduction to Two way slab		https://www.youtube.com/watch?v=JuARLsIJ7s&list=PLYzWtXZJPJpxEgX5ut1bDegm3aBXtRu64&index=6
33			L5	Problem on design of two way slab(Corners Un restrained)		https://www.youtube.com/watch?v=uOE4DxjdkKg&list=PLYzWtXZJPJpxEgX5ut1bDegm3aBXtRu64&index=4

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
34			L6	Problem on design of two way slab(Corners Restrained)		https://www.youtube.com/watch?v=TcU55xt7jac&list=PLYzWtXZJPJpxEgX5ut1bDegm3aBXtRu64&index=5

UNIT V:

35	III-I S. Kranthi Vijaya		L1	Introduction to columns	6	https://www.youtube.com/watch?v=d4M8bGn3hLE&list=PLYzWtXZJPJpwwAsE8ZrwK_xWVrDCWfVKv&index=1
36			L2	Problem on design of axially loaded short column		https://www.youtube.com/watch?v=p41ul0bhUGM&list=PLYzWtXZJPJpwwAsE8ZrwK_xWVrDCWfVKv&index=2
37			L3	Problem on design short column subjected to axial load and uni axial bending		https://www.youtube.com/watch?v=H7j551tjzt0&list=PLYzWtXZJPJpwwAsE8ZrwK_xWVrDCWfVKv&index=3
38			L4	Problem on design short column subjected to axial load and bi axial bending		https://www.youtube.com/watch?v=0jKx0JlxvfVA&list=PLYzWtXZJPJpwwAsE8ZrwK_xWVrDCWfVKv&index=4
39			L5	Introduction to footing		https://www.youtube.com/watch?v=sGeUbbygLMQ&list=PLYzWtXZJPJpwwAsE8ZrwK_xWVrDCWfVKv&index=5
40			L6	Problem on design of isolated rectangular footing		https://www.youtube.com/watch?v=PiaUWEnyL7&list=PLYzWtXZJPJpwwAsE8ZrwK_xWVrDCWfVKv&index=6

Name of the Subject: Transportation Engineering – II

UNIT I: Rails and Sleepers

1	III-I	Mr. G Partha Saradhi	L1	Rails Introduction	7	https://www.youtube.com/playlist?list=PLw6UazB00i9F3CYqslaUmpT7c1dPEOh
2			L2	Sleepers		BO
3			L3	Rails part-1		
4			L4	rails Part-2		
5			L5	Creep		
6			L6	Ballast		
7			L7	Permenent Way Components		

UNIT II: Railways

8		L1	Alignment		
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S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
9	III-I	Mr. G Partha Saradhi	L2	Engineering Survey	7	https://www.youtube.com/playlist?list=PLw6UazB00i9FYh77Ge6aXczCVIP5h0lcH
10			L3	Gradients and Grade Compensation		
11			L4	Speed of Train		
12			L5	Curves		
13			L6	Points and Switches		
14			L7	Turnouts		
UNIT III: Airports						
15	III-I	Mr. G Partha Saradhi	L1	Airport Master Plan	6	https://www.youtube.com/playlist?list=PLw6UazB00i9EiycoCj1G0tE3BGeOM5RoM
16			L2	Airport Site Selection		
17			L3	Airport Characteristics		
18			L4	Zoning Laws and Airport Classification		
19			L5	Runway Orientation - Windrose Diagram		
20			L6	Runway length, Taxi way design		
UNIT IV: Runway Pavements						
21	III-I	Mr. G Partha Saradhi	L1	Various design factors	11	https://youtu.be/gFql2dzChQI
22			L2	Design Methods for flexible pavements		
23			L3	Design Methods for rigid pavements		
24			L4	Airfield pavement failures		
25			L5	Flexible pavement failures		
26			L6	Failure of rigid pavements		
27			L7	Maintenance and rehabilitation of airfield pavements		
28			L8	Evaluation and strengthening of airfield pavements		
29			L9	LCN system of pavement design		
30			L10	Airport drainage		
31			L11	Design of surface and subsurface drainage		
UNIT V: Ports and harbours						
32	III-I	Mr. G Partha Saradhi	L1	Classification of ports and requirements of good port	9	https://youtu.be/vzPGvJVF_MZ8
33			L2	Classification of Harbours		
34			L3	Docks: Dry and Wet docks		
35			L4	Transition sheds and layout workhouses		
36			L5	Quays and construction of quay walls		
37			L6	Wharves and Jetties, Tides: Tidal data and analysis		
38			L7	Break waters and Dredging		
39			L8	Maintenence of ports and harbours		
40			L9	Navigational Aids		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
Name of the Subject: Estimation and Contracts						
UNIT I: Introduction						
1	IV-I	Mr. B Brahmiah	L1	Introduction part-I	7	https://youtu.be/_EBSbCMvtbg
2			L2	Introduction part-II.		https://youtu.be/Ky94PDmfsfs
3			L3	Principle Units		https://youtu.be/g31H_F4kQHU
4			L4	Detailed Estimate and Approximate cost of estimation		https://youtu.be/Hb9tlx1ct_E
5			L5	Items in Building Part-1.		https://youtu.be/acoPyo6FSio
6			L6	Items in Building Part-2 (Earthwork to plastering work)		https://youtu.be/Q2gFh7Ye9G8
7			L7	General & Detailed Specifications of Item for Building		https://youtu.be/RE642nRpZ1A
UNIT II: Detailed Estimation						
8	IV-I	Mr. B Brahmiah	L1	Introduction of Detailed Estimation	9	https://youtu.be/XDU0vJZDUes
9			L2	Deatiled Estimation of Single room building Long wall short wall method		https://youtu.be/U48-u-Z5gqE
10			L3	Estimation of single room building Center line methodUnit		https://youtu.be/ey70dCA37fU
11			L4	Estimation of two room building Long wall short wall method		https://youtu.be/dGkJJ_TeSuo
12			L5	Estimation of two room building Center line method		https://youtu.be/VRTk4ZAz2Tc
13			L6	Estimation of Hexagonal room		
14			L7	Previous Question paper problem (JNTUK Sept-2020)		https://youtu.be/8SBwv81-yAo
15			L8	Deatiled Estimation ofbuilding (LW-SW method)		
16			L9	Deatiled Estimation ofbuilding (Center Line method)		https://youtu.be/XZoFhMZteH4
UNIT III: Rate Analysis						
17	IV-I	Mr. B Brahmiah	L1	Intoduction of Rate Analasis	8	https://youtu.be/3fiqtYR6S7o
18			L2	Task or turnout of labour		https://youtu.be/FKGpfeRpstc
19			L3	Rate analisis of Varies Items		https://youtu.be/9TxX3JSmgkg
20			L4	Rate Aanalasis of Varies Items Part-I		https://youtu.be/irP929CL8kY
21			L5	Rate Aanalasis of Varies Items Part-II		https://youtu.be/2E7UdevLqRM
22			L6	Rate Aanalasis of Varies Items Part-III		https://youtu.be/XgSxmO9hrl

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
23			L7	Rate Analysis of Various Items Part-IV		https://youtu.be/Svrlf9oOTBA
24			L8	Rate Analysis of Various Items Part-V		https://youtu.be/RcP6hmAxlo
UNIT IV: Earth Work Estimation for Roads and Canals and BBS						
25	IV-I	Mr. B Brahmiah	L1	Introduction on Earth Work Estimation for roads	15	https://youtu.be/SumDxm_yGDeA
26			L2	Introduction Earth Work Estimation for Canals		https://youtu.be/apM8ZNWH4C8
27			L3	Earth Work Estimation OF road section		https://youtu.be/vrHxYDKRJ84
28			L4	Earthwork for banking using Mid Sectional Area Method		https://youtu.be/O43Sdgb4I5O
29			L5	Canal Side slopes calculation		https://youtu.be/9hNh-A9gVHM
30			L6	Banking & cutting by Mid Sectional Area Method		https://youtu.be/OFJILHM_GcCk
31			L7	Banking & Cutting By Mean Sectional area method		https://youtu.be/i6z12c8Eoic
32			L8	Prismoidal Method		https://youtu.be/x9dJFPaZLOU
33			L9	Earth Work Calculation In Canals		https://youtu.be/3LiTYCykil4
34			L10	Balancing Depth of cutting		https://youtu.be/dRkRqafxRYU
35			L11	Introduction of BBS		https://youtu.be/G46evGO_WxDk
36			L12	Bar Bending Schedule for beams.		https://youtu.be/BSvorwDHn88
37			L13	Bar Bending Schedule for columns		https://youtu.be/1x4qqvkpSf8
38			L14	Bar Bending schedule for slabs		https://youtu.be/08SvHsmzHww
39			L15	Bar Bending Schedule for footings		https://youtu.be/sprQ7Ftoc6c
UNIT V: Tenders, Contracts and Valuation						
40	IV-I	Mr. B Brahmiah	L1	Types of tenders and Tender Documents	8	https://youtu.be/wd43Lr7pE8c
41			L2	Tender forms and Tender evaluation Process		https://youtu.be/tfUYzbUk-Ec
42			L3	Contracts and Contract Documents		https://youtu.be/qVWPcUTBhIQ
43			L4	Types of Contracts		https://youtu.be/7atQoe1ogZc
44			L5	Valuation and Out goings		https://youtu.be/AY4ujw5gPmE
45			L6	Terms used in Valuation		https://youtu.be/i00pqd1AOPM

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
46			L7	Methods of Depreciation		https://www.youtube.com/watch?v=2Q8S6hZyLRU
47			L8	Methods of Valuation		https://youtu.be/IFHZXp4FrUM

Name of the Subject: Water Resource Engineering-II

UNIT I: Introduction to irrigation engineering

1	IV-I Mr. P. Shiva Kumar		L1	Introduction to WRE-2	6	https://youtu.be/VpnCw2v8u1Y
2			L2	Methods of Irrigation		https://youtu.be/TOT3x2G15L0
3			L3	Crop Seasons in India, Types of Crops, Plant-water relation		https://youtu.be/9RXBzt28b9A
4			L4	Consumptive use of water by crops + SUM		https://youtu.be/7a6cHIBEcE
5			L5	Duty, Delta & Base Period. Irrigation Efficiencies		https://youtu.be/04Fz44KoxGA
6			L6	Frequency of Irrigation, Standards of Water for Irrigation.		https://youtu.be/4Rav2WoyEoQ

UNIT II: Canals

8	IV-I Mr. P. Shiva Kumar		L1	Canals, Their need & Types	9	https://youtu.be/lXnEjzhf5Mk
9			L2	Components of Canals		https://youtu.be/LOPC9mCKgog
10			L3	SUM on Balancing depth		https://youtu.be/4art4YGtIMw
11			L4	Design of Non- Alluvial Canals		https://youtu.be/S6Jg6q6fzg4
12			L5	Design of Alluvial Canals- Kennedy's method		https://youtu.be/g5vyVgdTMGI
13			L6	Design of Alluvial Canals- Lacey's method		https://youtu.be/04HsEj0e2fI
14			L7	Sum of Design of Alluvial Canals- kennedy's method		https://youtu.be/I0GkF1iv8j0
15			L8	Sum of Design of Alluvial Canals- laceys method		https://youtu.be/cyObOXKOKw
16			L9	Canal Lining		https://youtu.be/VsPHesMc0wk

UNIT III: Canal Structures

17	IV-I Mr. P. Shiva Kumar		L1	Introduction to Canal Regulation Works- Canal Falls	6	https://youtu.be/Hkl0g91pm9o
18			L2	Location of Canal Fall, Design Principles of Sarada Type Fall		https://youtu.be/WcYRz5Qk8dM
19			L3	Design Principles of Straight Glacis Fall		https://youtu.be/UZAQFNbJiNc
20			L4	Head & Cross Regulator		https://youtu.be/qLIIfjH7Nt8I
21			L5	Cross Drainage Works		https://youtu.be/NAugm2X7hUk

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
22			L6	River Training works		https://youtu.be/deIJkO4eQfw

UNIT IV: Diversion head works

25	IV-I	Mr. P. Shiva Kumar	L1	Introduction to diversion head works	5	https://youtu.be/VJPupBLoSGA
26			L2	Layout & Components of a weir, under sluice, fish ladder etc		https://youtu.be/vmutnmKkx_E
27			L3	Design of weir on non permeable foundation		https://youtu.be/hwzUp01eksg
28			L4	Design of weir on permeable foundations- Blighs creep theory		https://youtu.be/ieHXfErKqGk
29			L5	Design of weir on permeable foundations- Khosla's theory		https://youtu.be/KDHX4Fr07R8

UNIT V: Dams and spillways

40	IV-I	Mr. P. Shiva Kumar	L1	Reservoir planning	4	https://youtu.be/oNlyPwPW15Y
41			L2	Types of dams & failures in embankment dam		https://www.youtube.com/playlist?list=PLyqFo4bHsMS_15nzl-Zhq_uUOtrzn1L
42			L3	Gravity dams & Forces acting on it		https://youtu.be/f6hMcTqZh-U
43			L4	Spillways		https://youtu.be/TDiM3OYjjtc

Name of the Subject: Geotechnical Engineering-II

UNIT I: Shear Strength

1	IV-I	Mr. S S S Nitish	L1	Introduction	8	https://www.youtube.com/playlist?list=PL9H1kXr5UwehWENsIDlsfAPqNbKnKrSG
2			L2	Stress System		
3			L3	Stress System		
4			L4	Basic Numerical Problems		
5			L5	Mohr-Coulomb Theory		
6			L6	Shear Strength Tests, Drainage Conditions and Stress Strain Curves		
7			L7	Shear Strength Tests, Drainage Conditions and Stress Strain Curves		
8			L8	Shear Strength Tests, Drainage Conditions and Stress Strain Curves		

UNIT II: Soil Exploration

9	IV-I	Mr. S S S Nitish	L1	Introduction to Exploration	7	https://www.youtube.com/playlist?list=PL9H1kXr5UwehWENsIDlsfAPqNbKnKrSG
10			L2	Open Excavation Methods, Borings and Sampling		
11			L3	In-situ tests: SCPT		
12			L4	In-situ tests: CPT / DCPT		
13			L5	In-situ tests: Plate Load test		
14			L6	In-situ tests: Pressure Meter Test and vane Shear test		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
15			L7	In-situ tests: Seismic Refraction Method and Electrical Resistivity Method		
UNIT III: Stability of Slopes						
16	IV-I Mr. S S S Nitish		L1	Slopes and its stablitiy	12	https://www.youtube.com/playlist?list=PL9H1kXr5UwehWENsIDlsfAPqNbKnKrSG
17			L2	Stability of Infinte Slopes: cohesionless soils		
18			L3	Stability of infinite Slopes: cohesive soils		
19			L4	Stability Analysis		
20			L5	Taylor's Stability Number		
21			L6	Stability of slopes of dams and embankments		
22			L7	Problems on Slope Stability		
23			L8	Retaining Structures		
24			L9	Rankine's Earth Pressure Theory: Cohesionless soils		
25			L10	Rankine's Earth Pressure Theory: Cohesionless soils		
26			L11	Rankine's Earth Pressure Theory: Cohesive Soils		
27			L12	Coulomb's Theory		
UNIT IV: Shallow Foundations						
28	IV-I Mr. S S S Nitish		L1	Introduction to foundations	7	https://www.youtube.com/playlist?list=PL9H1kXr5UwehWENsIDlsfAPqNbKnKrSG
29			L2	Bearing capacity of soils		
30			L3	Bearing capacity determination methods		
31			L4	Bearing capacity determination methods and failure types		
32			L5	Effect of Water table onbearing capacity		
33			L6	IS Methods: Bearing Capacity of Soils		
34			L7	Settlement Criteria		
35			L8	Settlement Criteria		
36			L9	Settlement Criteria		
37			L10	Settlement Criteria: Plate Load test		
UNIT V: Deep Foundations						
38	IV-I Mr. S S S Nitish		L1	Pile Foundation	8	https://www.youtube.com/playlist?list=PL9H1kXr5UwehWENsIDlsfAPqNbKnKrSG
39			L2	Load carrying Capacity of Soils		
40			L3	Load carrying Capacity of Soils		
41			L4	Load carrying Capacity of Soils		
42			L5	Load carrying Capacity of Soils		
43			L6	Pile Load Test		
44			L7	Pile Groups		
45			L8	Well foundations		

Name of the Subject: Environmental Engineering-II

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
UNIT I: Sewage Systems						
1	IV-I	Mr. P Sai Kiran	L1	Systems of sewerage, Types of collection systems	8	https://www.youtube.com/playlist?list=PLt53M6dtwwKPE8e5VYnygvuhN8_M5Jhi
2			L2	Difference in the design of water supply pipes and sewer pipes, Sewer materials		
3			L3	Laying of sewer pipes		
4			L4	Assumptions in sewer design		
5			L5	Self-cleansing velocity and Maximum velocity		
6			L6	Classification of sewers, shape of sewer pipes		
7			L7	Methods of ventilation		
8			L8	Maintenance of sewer		
UNIT II: Sewage Characteristics						
9	IV-I	Mr. P Sai Kiran	L1	Sewage characteristics – Physical Characteristics	8	https://www.youtube.com/playlist?list=PLt53M6dtwwKPE8e5VYnygvuhN8_M5Jhi
10			L2	Sewage characteristics – Physical Characteristics		
11			L3	Chemical and Biological Characteristics		
12			L4	Chemical and Biological Characteristics		
13			L5	BOD-first stage BOD exertion and COD		
14			L6	Relative Stability and Population Equivalent		
15			L7	Biochemical reactions		
16			L8	Biological Growth curve and decomposition of sewage.		
UNIT III: Sewage Treatment						
17	IV-I	Mr. P Sai Kiran	L1	Treatment Methods – unit operations and unit process, Preliminary Treatment-screening	8	https://www.youtube.com/playlist?list=PLt53M6dtwwKPE8e5VYnygvuhN8_M5Jhi
18			L2	Grit chamber ,Skimming Tank		
19			L3	Primary Treatment – design of sedimentation tank		
20			L4	Primary Treatment – design of sedimentation tank		
21			L5	Aerobic and anaerobic treatment process - comparison.		
22			L6	Activated Sludge Process, principles, designs, and operational processes		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
23			L7	miscellaneous methods		
24			L8	Oxidation Ponds, Aerated Lagoons.		
UNIT IV: Sewage Tanks and design						
25	IV-I	Mr. P Sai Kiran	L1	Trickling Filters-mechanism of impurities removal	8	https://www.youtube.com/playlist?list=PLt53M6dtwwKPE8e5VYnygvuhN8_M5Jhi
26			L2	classification-filter problems-design and operation-recirculation		
27			L3	Rotary Biological Contactors RBC's		
28			L4	Septic tank – design criteria		
29			L5	disposal of effluent from a septic tank, Imhoff tank		
30			L6	sludge digestion – sludge digestion process		
31			L7	stages of decomposition, factors affecting sludge digestion		
32			L8	stages of decomposition, factors affecting sludge digestion		
UNIT V: waste water disposal						
33	IV-I	Mr. P Sai Kiran	L1	characteristics- thickening-digestion	8	https://www.youtube.com/playlist?list=PLt53M6dtwwKPE8e5VYnygvuhN8_M5Jhi
34			L2	Drying and sludge disposal		
35			L3	Various methods of disposal, various natural forces of self-purification		
36			L4	Zones of pollution in a river stream		
37			L5	Indices of self-purification		
38			L6	Oxygen Sag Curve		
39			L7	Disposal of wastewater in lakes and management of lake water		
40			L8	disposal of wastewater in the sea, disposal on land		

Name of the Subject: Remote Sensing & GIS Application

UNIT I: Introduction

1			L1	Remote Sensing Introduction		https://youtu.be/VpnCw2v8u1Y
2			L2	Basic components of Remote sensing		https://youtu.be/TOT3x2G15L0
3			L3	Electromagnetic Radiation		https://youtu.be/9RXBzI28b9A

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
4	IV-I	M.Leela Priyanka	L4	Energy Interactions	7	https://youtu.be/7a6eHlBFqcE
5			L5	Platforms		https://youtu.be/04Fz44KoxGA
6			L6	Sensors		https://youtu.be/4Rav2WoyEoQ
7			L7	Data Processing..		https://youtu.be/4Rav2WoyEoQ

UNIT II: Geographic Information system

8	IV-I	M.Leela Priyanka	L1	UNIT 2 GIS I ntroduction	8	https://youtu.be/lXnEjzhfsmK
9			L2	Key Components of GIS		https://youtu.be/LOPC9mCkgog
10			L3	Data Types		https://youtu.be/4art4YGtIMw
11			L4	Raster VS Vector		https://youtu.be/S6Jg6q6fzg4
12			L5	Spatial data analysis in GIS		https://youtu.be/g5vyVgdTMGI
13			L6	Data structures		https://youtu.be/04HsEj0o2fl
14			L7	Digitization Process		https://youtu.be/10GkF1iv8j0
15			L8	Map Projections		https://youtu.be/cyObOXKOKw

UNIT III: Image Analysis

17	IV-I	M.Leela Priyanka	L1	Image Interpretation	6	https://youtu.be/Hkl0g91pm9o
18			L2	Data Formats		https://youtu.be/WeYRz5Qk8dM
19			L3	Image Preprocessing		https://youtu.be/UZAQFNBJiNc
20			L4	Image Rectification		https://youtu.be/qllfjH7Nt8I
21			L5	Image Enhancemet		https://youtu.be/NAugm2X7hUk
22			L6	Image classification		https://youtu.be/deIJkO4eQfw

UNIT IV: RS&GIS techniques for Natural resource management

25	IV-I	M.Leela Priyanka	L1	LULC	5	https://youtu.be/VJPupBLoSGA
26			L2	Agriculture		https://youtu.be/vmuinmKkxE
27			L3	Forestry		https://youtu.be/hwzUp01eksg
28			L4	Waste Land		https://youtu.be/ieHXfErKqGk
29			L5	Water Resources		https://youtu.be/KDHX4Fr07R8

UNIT V: RS & GIS Techniques for Infrastructure development & Natural Disaster

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
40	IV-I	M.Leela Priyanka	L1	Infrastructure planning	4	https://youtu.be/oNlyPwPW15Y
41			L2	Cyclones & Earthquakes		https://www.youtube.com/playlist?list=PLyqFo4bHsMS_15nzl-Zhq_uUOtrzn1L
42			L3	Floods		https://youtu.be/f6hMcTqZh-U
43			L4	Landslides		https://youtu.be/TDiM3OYjjtc




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DEPARTMENT OF MECHANICAL ENGINEERING

Digital Content Developed by Faculty during Academic Year 2020-2021

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
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Name of the Subject: Complex Variables & Statistical Methods

UNIT I: Functions of Complex Variables

1	II-I	Dr. M. Laxmi Soujanya	L1	INTRODUCTION	10	https://bit.ly/cvsm_me
2			L2	COMPLEX FUNCTIONS		
3			L3	LIMIT		
4			L4	CONTINUITY		
5			L5	DIFFERENTIABILITY & ANALYTICITY		
6			L6	LAPLACE EQUATIONS		
7			L7	POLAR FORM OF CR EQUATIONS		
8			L8	PROBLEMS ON CR EQUATIONS		
9			L9	PROBLEMS ON CR EQUATIONS		
10			L10	HARMONIC CONJUGATE FUNCTIONS		

Unit 2: Complex Integration & Complex Power Series

1	II-I	Dr. V. Ramani	L1	LINE INTEGRALS	5	https://bit.ly/cvsm_me
2			L2	LINE INTEGRAL PROBLEMS		
3			L3	CAUCHY INTEGRAL THEOREM		
4			L4	CAUCHY INTEGRAL PROBLEMS		
5			L5	LAURENT, TAYLORS AND TYPES OF SINGULARITIES		

Unit 3 : Residues & Random Variables

1	II-I	Dr. S. Sunitha Devi, Mrs. S. Indira & Dr. N. Ramya	L1	RESIDUE	9	https://bit.ly/cvsm_me
2			L2	RESIDUE THEOREM		
3			L3	RANDOM VARIABLES INTRODUCTION		
4			L4	EXPECTATION PROPERTIES		
5			L4	DISCRETE PROBLEMS		
6			L5	CONTINUITY PROBLEMS		
7			L6	BINOMIAL DISTRIBUTIONS		
8			L7	POISSON DISTRIBUTION		
9			L8	NORMAL DISTRIBUTION INTRODUCTION		
10			L9	NORMAL DISTRIBUTION PROBLEM		

Unit 4 : Sampling Distribution & Test of Hypothesis

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
1	II-I	Dr. N. Ramya	L1	SAMPLING DISTRIBUTION INTRODUCTION	14	https://bit.ly/cvsm_me
2			L2	ESTIMATION INTRODUCTION		
3			L3	ESTIMATION PROBLEMS		
4			L4	ESTIMATION PROBLEMS		
5			L5	TESTING OF HYPOTHESIS INTRODUCTION		
8			L6	LARGE SAMPLE INTRODUCTION & SINGLE MEAN PROBLEMS		
9			L7	TWO MEAN AND SINGLE PROPORTION PROBLEMS		
10			L8	TWO PROPORTION PROBLEMS		
11			L9	TEST INTRODUCTION AND SINGLE MEAN PROBLEMS		
12			L10	TWO MEAN PROBLEM		
13			L11	PAIRED TEST PROBLEMS		
14			L12	VARIANCE INTRODUCTION AND PROBLEMS		
15			L13	ATTRIBUTES INTRODUCTION AND PROBLEMS		
16			L14	GOODNESS OF FIT PROBLEMS		

Unit 5 : Correlation & Regression

1	II-I	Mrs. S. Indira	L1	CORRELATION INTRODUCTION	7	https://bit.ly/cvsm_me
2			L2	CORRELATION PROBLEMS		
3			L3	CORRELATION PROBLEMS		
4			L4	REGRESSION INTRODUCTION		
5			L5	REGRESSION PROBLEMS		
6			L6	ANGLE BETWEEN REGRESSION		
7			L7	MULTIPLE ANGLE REGRESSION		

Name of the Subject: Materials Engineering

UNIT I: Structure of Metals and Constitution of Alloys

1	II-I	Dr.V.M. Rao	L1	Materials Introduction	9	https://bit.ly/mms_me
2			L2	Crystal System Introduction		
3			L3	Cubic Systems		
4			L4	Crystal System - FCC		
5			L5	Hexagonal Crystal System		
6			L6	Other Crystal Systems		
7			L7	Crystal Imperfections - Introduction		
8			L8	Crystal Imperfections		
9			L9	Crystal Imperfections		

UNIT II: Equilibrium Diagrams

1	II-I	Dr.V.M. Rao	L1	Phase Equilibrium	10	https://bit.ly/mms_me
2			L2	Phase Equilibrium - Invariant Reactions		
3			L3	Phase Equilibrium		
4			L4	Construction of Phase Diagram		
5			L5	Eutectic Phase Diagram Bi-Cd		
6			L6	Pb-Sn Phase diagram		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
7			L7	Peritectic System		
8			L8	Iron Carbon System (Part 1)		
9			L9	Iron Carbon System (Part 2)		
10			L10	Lever Rule		

UNIT III: Cast Iron and Steels

1	II-I	Mrs. P. Harisha	L1	Structure and properties of WCI & MCI	6	https://bit.ly/mmsme
2			L2	Structure and properties of GCI & SGCI		
3			L3	Alloy cast irons		
4			L4	Classification of steels and plain carbon steels		
5			L5	Low alloy steels and stainless steels		
6			L6	Hadfield manganese steels and Tool and Die steels		

UNIT IV: Heat Treatment of Alloys

1	II-I	Mrs. P. Harisha	L1.1	Effect of alloying elements on Iron carbide system	7	https://bit.ly/mmsme
2			L2.1	Introduction to Heat Treatment		
3			L2.1	Annealing and Normalising		
4			L3	Hardening and Tempering		
5			L4	Hardenability and TTT diagrams		
6			L5	Surface Hardening Methods		
7			L6	Age hardening treatment and Cryogenic treatment		

UNIT V: Non - Ferrous Metals & Ceramic and Composite Materials

1	II-I	Dr.V.M. Rao	L1	Copper and its Alloys	6	https://bit.ly/mmsme
2			L2	Aluminium and its Alloys		
3			L3	Composites		
4			L4	Polymer Metal Composites (PMC)		
5			L5	Rules of Mixtures Part 1		
6			L6	Rules of Mixtures Part 2		

Name of the Subject: Mechanics of Solids

UNIT I: Simple stresses and strains

1			L1	Introduction, Elasticity and plasticity- Types of stresses & strains-Hooke's law. Stress – strain diagram for mild steel		
2			L2.1	Lateral strain, Poisson's ratio, Working stress – Factor of safety, elongation of bars,		
3			L2.2	Problems on bars of varying cross section. Stresses induced in 2D and 3D stress system		
4			L3.1	Bars with intermediate axial loads		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
5	II-I	Mr. B Hemanth	L3.2	Statically determinate structures, Statically indeterminate structures,	11	http://bit.ly/some
6			L4	Temperature stresses		
7			L5	Stresses on an inclined plane under uniaxial stress and pure shear stresses		
8			L6.1	Plane stress condition, Principal planes		
9			L6.2	principal stresses, Mohr's circle		
10			L7	Different elastic constants and Relation between elastic constants		
11			L8	Strain energy – Resilience – Gradual, sudden, impact and shock loadings		

UNIT II: Shear force & Bending moment and Flexural stresses

1	II-I	Mrs. G Bhavani	L1	Definition of beam – Types of beams – Concept of shear force and bending moment	9	http://bit.ly/some
2			L2	S.F and B.M diagrams for cantilever beams under Point load and u.d.l		
3			L3.1	S.F and B.M diagrams for cantilever beams under u.v.l and for simply supported beams under point loads		
4			L3.2	S.F and B.M diagrams for simply supported beams under udl		
5			L4	S.F and B.M diagrams for simply supported beams under uv		
6			L5	S.F and B.M diagrams for overhanging beams under various loads. Relation between S.F., B.M and rate of loading at a section of a beam		
7			L6	FLEXURAL STRESSES : Theory of simple bending-Assumptions. Derivation of bending equation: $M/I = f/y = E/R$ Neutral axis – Determination bending stresses. Section modulus of rectangular and circular sections (Solid and Hollow),		
8			L7	Related problem practice		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
9			L8	I, T, Angle and Channel sections – Design of simple beam sections.		

UNIT III - Shear stresses & Deflection of Beams

1	II-I	Mrs. G Bhavani	L1	Derivation of shear stress about neutral axis and comparison with average shear stress for Rectangular and Circular cross section. Shear stress distribution for I- Section	8	http://bit.ly/som_me
2			L2.1	Shear stress distribution for I- Section		
3			L2.2	Shear stress distribution for T- Section		
4			L3	Shear stress distribution for unsymmetrical I- Section		
5			L4	Bending into a circular arc – slope, deflection and radius of curvature. Differential equation for the elastic line of a beam, Double integration methods for beams applied for simply supported beams		
6			L5	Double integration methods for beams applied for cantilever beams		
7			L6	Macaulay's methods to calculate slope and deflection under various loadings		
8			L7	Moment area method – application to simple cases including overhanging beams. Maxwell's reciprocal theorem. Brief explanation of statically indeterminate beams and solution methods		

UNIT IV - Thin Cylinders & Thick Cylinders

1	II-I	Mr. B Hemanth	L1	THIN CYLINDERS : Cylindrical shells – Derivation of formula for longitudinal and circumferential stresses	7	http://bit.ly/som_me
2			L2	Change in dia, change in length, and change in volume derivation. Related problem practice		
3			L3	Riveted boiler shells. Thin spherical shells and related problem practice		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
4			L4	Thick cylinders-lame's equation – cylinders subjected to inside pressures		
5			L5	Related problem practice		
6			L6	Compound cylinders,		
7			L7	Thick Spherical shells		

UNIT V - Torsion & Columns

1	II-I	Mr. B Hemanth	L1	Torsion: Introduction, Derivation of formula torsion of circular shaft	7	http://bit.ly/som_me
2			L2	Torsion of circular shafts - pure shear		
3			L3	Power transmission through Shafts in series and shafts in parallel		
4			L4	Stresses and deformation in hollow shafts, stepped shafts		
5			L5	Columns: Introduction to buckling of columns and some important definitions. Derivation of Euler's buckling load for column with pinned ends		
6			L6	Derivation of Euler's buckling load for column with pinned ends and both ends are fixed.		
7			L7	Limitations of Euler's formula and Rankine's formula		

Name of the Subject: Thermodynamics

UNIT I: Introduction to Thermodynamics

1	II-I	Dr. Girish Bhiogade	L1	Introduction, macroscopic and microscopic viewpoint, system, surroundings, boundaries, universe, types of system, control volume, concept of continuum	6	https://bit.ly/etd_me
2			L2	Thermodynamic equilibrium, state, property types of thermodynamic process, causes of irreversibility cycle reversibility		
3			L3	Quasi static process, Zeroth law of thermodynamics, different form of work and heat. path function and point function.		
4			L4	Numericals on Heat and work transfer		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
5			L5	First law of thermodynamics. Joules experiment, corollaries, PMM1		
6			L6	First law applied to a process. SFEE applied to various flow system		

UNIT II: Second Law of Thermodynamics

1	II-I	Dr. Girish Bhiogade	L1	Limitations of FirstLaw, Thermal Reservoir, Heat Engine, Heat pump and Refrigerator-Parameters of Performance	7	<a href="https://bit.ly/etd
me">https://bit.ly/etd me
2			L2	Introduction to Second Law, Kelvin Planck and Clausius Statement, Equivalence of Kelvin Planck and Clausius Statement, Corollaries of Second Law		
3			L3	PMM II, Reversible Process, Irreversible Process, Reasons for Irreversibility, Carnot cycle and principles, Energy quality		
4			L4	Introduction to Entropy, Clausius Theorem, Property of Entropy, Clausius Inequality, Entropy Principle, Numerical		
5			L5	Principle of Increase of Entropy, Entropy Change for System and Surrounding, Numerical		
6			L6	Available energy, unavailable energy, exergy and types of exergy, Availability concept applied to closed system, Availability concept applied to open system / flow process, Numerical		
7			L7	Mathematical Theorems, Maxwell Relations, Gibbs Function, Helmholtz Function, Third Law of Thermodynamics		

UNIT III: Perfect Gas Laws and Mixture of Perfect Gases

1	III-I	Mr. Nekkala	L1	Equation of state , specific and universal gas constants, various non flow processes, properties, end states	6	https://bit.ly/etd
2			L2	Heat and work transfer, changes in internal energy throttling and free expansion processes flow processes		
3			L3	Deviations from perfect gas model vanderwaals equation of state compressibility charts variable specific heats		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
4	II-I	Ganesh	L4	Mole fraction, mass friction, gravimetric and volumetric analysis Dalton's law of partial pressure, Avogadro's laws of additive volumes	6	me
5			L5	Equivalent gas constant, molecular internal energy, enthalpy, sp. Heats and entropy of mixture of perfect gases, vapour and atmospheric air		
6			L6	Numerical Problems on Perfect Gas Laws and Gas mixture		

UNIT IV: Properties of Pure Substances and Psychrometry

1	II-I	Mr. Nekkala Ganesh	L1	P-V-T- surfaces, t-s and h-s diagrams, mollier charts, phase transformations-triple point at critical state properties during change of phase	7	https://bit.ly/etd_me
2			L2	Dryness fraction – clausius –clapeyron equation- property tables. Mollier charts – various thermodynamic processes and energy transfer – steam calorimetry		
3			L3	Numericals problems on Properties of steam		
4			L4	Numericals problems on Properties of steam and Mollier chart		
5			L5	Psychrometric properties- dry bulb temperature, wet bulb temperature, dew point temperature, thermodynamic wet bulb temperature, specific humidity, relative humidity, turated air, vapour pressure, degree of saturation–adiabatic saturation, carrier's equation – psychrometric chart		
6			L6	Numerical Problems on Psychrometry		
7			L7	Numerical Problems on Psychrometry		

UNIT V: Power Cycles

1	II-I	Dr. Girish Bhiogade	L1	Thermodynamic cycle, Air standard cycle, carnot cycle, canot principle, engine terminology, 4 stroke engie working operation, Otto cycle analysis	6	https://bit.ly/etd_me
2			L2	Diesel cycle analysis, Dual cycle analysis Comparison of otto, diesel and dual cycles		
3			L3	Numericals on Otto and diesel cycle		
4			L4	Stirling cycle, Ericsson cycle, Lenoir cycle, Atkinson cycle, Brayton cycle		
5			L5	Gas turbine operation, Improvement of gas turbine performance, Condition of best performance		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
6			L6	Rankine cycle. Reheat rankine cycle, regenerative cycle, vapour compression refrigeration cycle,		

Name of the Subject: Fluid Mechanics & Fluid Machines

UNIT I: Fluid statics & Buoyancy and floatation

1	II-I Mr. R.Sundara Ramam	L1	Introduction to fluid mechanics and fluid machines	8
2		L2	Viscosity,significance,Problems	
3		L3	Problems on viscosity	
4		L4	Cohesion,Adhesion,surface tension,Pressure inside a water droplet,soap bubble and a liquid jet.	
5		L5	capillary rise and depression,Problems on surface tension and capillarity	
6		L6	Atmospheric,gauge and vaccum pressure,Hydrostatic law, Measurement of pressure,Piezometer,Manometers	
7		L7	Differential manometers,Problems.	
8		L8	Buoyancy,Flotation,stability of submerged and floating bodies,Metacentre and metacentric height,stability analysis and applications,Problems.	

UNIT II: Fluid kinematics, Fluid dynamics & Closed conduit flow

7	II-I Mr. R.Sundara Ramam	L1	Fluid kinematics: Introduction, flow types, flow lines, Equation of continuity for one dimensional flow and problems	7
8		L2	Velocity and acceleration of a fluid motion, problems	
9		L3	Stream function and velocity potential function, differences and relation between them, Conditions for irrotational flow, flow net	
10		L4	Fluid dynamics: surface and body forces, Euler's and Bernoulli's equations for flow along a stream line and problems.	
11		L5	Applications of Bernoulli's theorem: venturi meter, orifice meter and pitot tube, problems	
12		L6	Theory and problems of momentum equation and its applications (force on pipe bend)	

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
13			L7	Closed conduit flow: Darcy Weisbach equation, chezy's formula (major energy losses), Minor losses in pipes, Total energy line and hydraulic gradient line.		https://bit.ly/ffme
UNIT III: Boundary-Layer Theory, Dimensional analysis and model similitude						
14	II-I Mr. B. N. Dhanunjayarao		L1	Introduction to Boundary Layer Theory	7	
15			L2	Boundary-Layer Thickness methods		
16			L3	Separation of boundary layer		
17			L4	Introduction to dimensional analysis and rayleigh's method		
18			L5	Buckingham's – theorem		
19			L6	Model analysis and types of similitudes		
20			L7	Forces acting on a moving fluid and dimensionless numbers		
UNIT IV: Impact of jets, Hydraulic turbines & Performance of hydraulic turbines						
21	II-I Mr. B. N. Dhanunjayarao		L1	Impact of jets and Force on stationary plate	7	
22			L2	Impact of jets & Force on moving plate		
23			L3	Impact of jets on unsymmetrical curved moving vane		
24			L4	Introduction to turbines and Pelton wheel		
25			L5	Francis turbine and its working		
26			L6	Kaplan turbine and its working		
27			L7	Performance of hydraulic turbines		
UNIT V: Centrifugal pumps, Reciprocating pumps & Hydraulic systems						
28	II-I Mr. R.Sundara Ramam		L1	Introduction to centrifugal pump, Heads and efficiencies of Centrifugal pump, Workdone.	7	
29			L2	Multistage centrifugal pumps, Specific speed of a centrifugal pump.		
30			L3	Model testing, Priming, Cavitation of centrifugal pumps.		
31			L4	Characteristic curves, NPSH, Reciprocating pump, components, working.		
32			L5	Classification, Work done, slip, %slip, work done by reciprocating pump.		
33			L6	Indicator diagram, Air vessels, Working of air vessel		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
34			L7	Hydraulic ram, Hydraulic lift, Fluid coupling, Fluidics, Amplifiers, sensors, Oscillators.		

Name of the Subject:Dynamics of Machinery

UNIT I

1	III-I K. SRI HARSHA	L1	Introduction to Gyroscopic couple and derivation of Gyroscopic couple	8	https://bit.ly/dome
2		L2	Effect of precession motion on the stability of the moving vehicles such as Aeroplanes		
3		L3	Effect of precession motion on the stability of the moving vehicles such as Ships		
4		L4	Tutorial problems on ships		
5		L5	Effect of precession motion on the stability of the moving vehicles such as Motor Car		
6		L6	Tutorial problems on Motor Car		
7		L7	Effect of precession motion on the stability of the moving vehicles such as Motor Cycle		

UNIT II

1	III-I K. SRI HARSHA	L1	Introduction to clutches, Friction clutches and its applications.	8	https://bit.ly/dome
2		L2	Single plate clutch		
3		L3	Multi plate, Cone and Centrifugal clutch		
4		L4	Brakes and its types, Single Shoe Brake		
5		L5	Pivoted Block, Simple Band and Differential Band Brakes		
6		L6	Internal Expanding Brake, Dynamometers and its types		
7		L7	Classification of Transmission Dynamometers and its working		

UNIT III

1	III-I K. SRI HARSHA	L1	Dynamic force analysis of slider crank mechanism	8	
2		L2	crank effort and turning moment diagrams		
3		L3	fluctuation of energy		
4		L4	fly wheels and their design.		
5		L5	Watt, porter and proell governors		
6		L6	Hartnell and Hartung		
7		L7	Sensitiveness, isochronisms and hunting		

UNIT IV

1		L1	Introduction to Balancing, balancing of Rotating masses		
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S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
2	III-I	K. SRI HARSHA	L2	Single mass balanced by two at different planes	8	https://bit.ly/domme
3			L3	Several masses in single plane		
4			L4	several masses in different plane		
5			L5	Differnce between unbalanced force due to rotating and reciprocating masses		
6			L6	Partial balancing of unbalanced primary force in reciprocating engine		
7			L7	Partial balancing of locomotives		
8			L8	Balancing of reciprocating Masses		

UNIT V

1	III-I	K. SRI HARSHA	L1	Free vibration of single degree of freedom systems	8	
2			L2	forced vibration of single degree of freedom systems		
3			L3	effect of damping		
4			L4	vibration isolation and transmissibility		
5			L5	resonance		
6			L6	critical speeds of shafts		

Name of the Subject: Manufacturing Technology - II

UNIT I: FUNDAMENTALS OF MACHINING

1	III-I	Dr. S. Rambabu / Prof. S. Kamaluddin	L1	Introduction to metal cutting theory, Elements of machining, Single point and multi point cutting tools	8	https://bit.ly/mt2me
2			L2	Geometry of single point cutting tools		
3			L3	Systems for tool description for geometry		
4			L4	Mechanics of chip formation, Types of chips and Chip breakers		
5			L5	Orthogonal and oblique cutting		
6			L6	Mechanics of metal cutting, Merchants Circle diagram, cutting forces		
7			L7	Cutting tool materials, Tool wear, Tool life, and coated cutting tools		
8			L8	Cutting fluids, its properties, Selection of cutting fluids, Machinability and economics of machining.		

UNIT II: LATHE MACHINES & SHAPING, PLANING AND SLOTTING MACHINES

1			L1	Introduction to Lathe machines, working principle, principal parts, Specifications of the lathe machine.		
2			L2	Various lathe operations, Work holding and tool holding devices, Methods of Taper turning.		
3			L3	Thread cutting operation, Types of lathes, turret and capstan lathes.		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
4	III-I	Dr. S. Rambabu	L4	Automatic lathes, Classification of automatic lathes, Single and multi spindle automatic lathes.	6	https://bit.ly/mt2me
5			L5	Introduction to reciprocating machine tools, Working principle of shaping machine, Principal parts, operations and specifications.		
6			L6	Working principle of planning and slotting machines, Principal parts, operations and specifications.		

UNIT III: DRILLING & MILLING MACHINES

1	III-I	Dr. S. Rambabu	L1	Introduction to drilling, working principle, principal parts, Various types of drilling machines and specifications.	6	https://bit.ly/mt2me
2			L2	Hole related operations, Boaring, counter boaring, sinking, spot facing Nomenclature of twist drill.		
3			L3	Working principle of milling machine, Classification of milling machines, Specifications of milling machine.		
4			L4	Types of milling cutters, Types of milling operations, Nomenclature of milling cutter		
5			L5	Introduction to Indexing, Methods of Indexing, Milling attachments		
6			L6	Introduction to broaching, Nomenclature of broaching tool		

UNIT IV: FINISHING PROCESSES

1	III-I	Dr. S. Rambabu	L1	Introduction to abrasive processes Grinding operation, types of abrasives and bonding materials, Specification of grinding wheel	6	https://bit.ly/mt2me
2			L2	Grinding machines, Classification of grinding machines, Cylindrical, surface and, tool and cutter grinding machines		
3			L3	Working principle of honing process Abrasive type and size for honing sticks		
4			L4	Introduction to loose abrasive processes, Working principle of lapping process, Effect of process parameters on MRR and Surface finish		
5			L5	Working principle of CMP process Effect of process parameters on MRR and Surface finish		
6			L6	Working principle of Magnetorheological process, Applications of magnetorheological finishing process		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
UNIT V: JIGS & FIXTURES, CNC MACHINE TOOLS, AND ADDITIVE MANUFACTURING						
1	III-I Prof. S. Kamaluddin		L1	Introduction to Jigs and Fixtures - Design, Uses and Classification	5	https://bit.ly/mt2me
2			L2	Principles of location, clamping and work holding devices		
3			L3	CNC Machines, working, classification and constructional features		
4			L4	CNC Machines- Motion controllers and Applications		
5			L5	Introduction to Additive manufacturing, Advantages and Limitations		

Name of the Subject: Design Of Machine Members -II

UNIT I: Introduction						
1	III-I Mr.B.Somi Naidu		L1	Introduction, Objectives, Outcomes BEARINGS: Sliding Contact Bearings: Classification of bearings, Applications	8	https://bit.ly/dmm2me
2			L2	Types of Sliding Contact Bearings Hydrodynamic Lubricated Bearings, Wedge Film Journal Bearings, Squeeze Film Journal Bearings, Bearing materials		
3			L3	Terms used in Hydro-Dynamic journal bearings, Materials used for Sliding Contact Bearings, lubrication, Bearing Characteristic Number, Bearing modulus		
4			L4	Coefficient of Friction for Journal Bearing Critical Pressure of the Journal Bearing, Sommerfeld Number, heat generated in a journal bearings		
5			L5	Design Procedure for Journal Bearings Problems, Rolling Contact Bearings-Advantages and Disadvantages Over Sliding contact Bearings		
6			L6	Types, standard Dimensions, Designation, Thrust Ball Bearings, Types of Roller Bearings , Basic Static Load Rating of Rolling Contact Bearings,		
7			L7	Static Equivalent Load for Rolling Contact Bearings, Life of a Bearing, Basic Dynamic Load Rating of Rolling Contact Bearings, Dynamic Equivalent Load for Rolling Contact Bearings		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
8			L8	Dynamic Load Rating for Rolling Contact Bearings under Variable Loads, Reliability of a Bearing, Selection of radial ball bearings, Materials and Manufacture of Ball and Roller Bearings		
UNIT II: Spur & Helical Gear Drives						
9	III-I Dr.L.V.V.Gopala Rao		L1	Spur Gear Drive- Advantages and Disadvantages of Gear Drives, Classification of Gears, Terms used in Gears, Gear Materials	7	https://bit.ly/dmm2_me
10			L2	Design Considerations for gear drive, Bending Strength of the Gear- Lewis equation, Permissible Working Stress for Gear Teeth in the Lewis Equation, Dynamic Tooth Load		
11			L3	Static Tooth Load, Wear Tooth Load, Design Procedure for Spur Gears		
12			L4	Spur Gear : Problem-1		
13			L5	Spur Gear : Problem-2		
14			L6	Introduction – Helical Gears, Terms used in Helical Gears Face Width of Helical Gears, Formative or Equivalent Number of Teeth for Helical Gears, Proportions for Helical Gears, Strength of HelicalGears		
15			L7	Helical Gear: Problem		
UNIT-III : Curved Beams, Machine Tool Elements & Wire Ropes						
16	III-I Mr. B.Somi Naidu		L1	Design of curved beams: Introduction,	6	https://bit.ly/dmm2_me
17			L2	stresses in curved beams- Derivation		
18			L3	problems with T- cross sections of curved beams		
19			L4	problems with rectangular and circular cross sections of curved beams		
20			L5	Machine Tool elements: Design of hand levers, Foot lever and cranked lever		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
21			L6	Wire Ropes- Advantages, Construction, Classification, Designation, properties ,Diameter, area, factor of safety, Wire Rope Sheaves and Drums, fasteners, Stresses in wire ropes, procedure for designing a wire rope		

UNIT-IV : Power Transmissions Systems

22	III-I	Dr.L.V.V.Gopala Rao	L1	Flat belt drives : Introduction, Types of Belts, Velocity Ratio of a Belt Drive, Slip of the Belt, Creep of Belt, Length of an Open Belt Drive, Length of a Cross Belt Drive, Power transmitted by a Belt, Ratio of Driving Tensions for Flat Belt Drive, Centrifugal Tension, Maximum Tension in the Belt, Condition for Transmission of Maximum Power, Initial Tension in the Belt Flat Belt Pulleys :Types of Pulleys for Flat Belts, Cast Iron Pulleys, Design of Cast Iron Pulleys	5	https://bit.ly/dmm2_me
23			L2	Problem-1		
24			L3	V-Belt and Rope Drives- Advantages and Disadvantages of V-belt Drive over Flat Belt Drive, Ratio of Driving Tensions for V-belt. Rope Drives, Fibre Ropes, Advantages of Fibre Rope Drives, Sheave for Fibre Ropes, Ratio of Driving Tensions for Fibre Rope		
25			L4	Problem-2		
26			L5	Design of power screws- Design of screw Jack		

UNIT-V: Internal combustion engine parts

27	III-I	Mr.B.Somi Naidu	L1	Connecting Rod- Forces Acting on the Connecting Rod	6	https://bit.ly/dmm2_me
28			L2	Design of Connecting Rod		
29			L3	Crankshaft- Types, materials, manufacture of crank shafts, Bearing Pressures		
30			L4	Design Data Book Information		
31			L5	Design Data Book Information		

Name of the Subject: Thermal Engineering - II

UNIT I: Introduction to Rankine Cycle and Boilers

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
1	III-I	Mr. K.Harish Kuma	L1.1	Simple Rankine Cycle ,	8	https://bit.ly/te2me
2			L1.2	Expression for Rankine Cycle Efficiency		
3			L2.1	Problems on Simple Rankine Cycle		
4			L2.2	Problems on Simple Rankine Cycle		
5			L3.1	Regenerative Cycle		
6			L3.2	Expression for masses of steam bled & Regenerative efficiency		
7			L4	Expression for efficiency of Reheat cycle		
8			L5	Boilers		
UNIT II: Steam Nozzles and Impulse Turbine						
1	III-I	Ms.A.Shanthi Swaroopini	L1	Types of Nozzles, Expression for Exit Velocity & Maximum Discharge	7	https://bit.ly/te2me
2			L2	Effect of Friction & Degree of Supersaturation		
3			L3	Problems on Steam Nozzles		
4			L4	Steam Turbines		
5			L5.1	Impulse Turbine - Velocity Triangles & Expression for Work Done		
6			L5.2	Expression for Maximum Efficiency of Impulse Turbine		
7			L6	Expression for Maximum Efficiency of Impulse Turbine		
UNIT III: Reaction Turbine and Steam Condensers						
1	III-I	Ms.A.Shanthi Swaroopini	L1	Reaction Turbine :-Principle & Velocity Triangle Diagram	8	https://bit.ly/te2me
2			L2	Degree of Reaction/Parson's Reaction Turbine		
3			L3	Degree of Reaction/Parson's Reaction Turbine		
4			L4.1	Problems on Reaction Turbine		
5			L4.2	Problems on Reaction Turbine		
6			L5	Problems on Reaction Turbine		
7			L6	Condenser & Vacuum Efficiency, Determination of Mass Flow Rate & Problems		
8			L7	Condenser & Vacuum Efficiency, Determination of Mass Flow Rate & Problems		
UNIT IV: Gas Turbines						
1			L1.1	Gas Turbines - Introduction & Working Principle		
2			L1.2	Gas Turbines - Introduction & Working Principle		
3			L2.1	Simple Open Cycle Gas Turbine Powerplant with Intercooling		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
4	III-I	Mr. K.Harish Kuma	L2.2	Simple Open Cycle Gas Turbine Powerplant with Reheating	7	https://bit.ly/te2_me
5			L2.3	Open Cycle Gas Turbine Powerplant with Regeneration		
6			L3.1	Closed Cycle Gas Turbine Powerplant & Expression for its Efficiency		
7			L3.2	Closed Cycle Gas Turbine Powerplant & Expression for its Efficiency		

UNIT V: Jet Propulsion

1	III-I	Mr. K.Harish Kuma	L1	Jet Propulsion, Classification & Working of TurboJet Engines	4	https://bit.ly/te2_me
2			L2	Propulsive Terms & Expressions		
3			L3.1	Working of Turboprop & Ramjet Engines		
4			L3.2	Working of Turboprop & Ramjet Engines		

Name of the Subject: Metrology

UNIT I: Systems of Limits & Fits

1	III-I	Mr. S.V.Ramana	L1	General Terminology	7	https://bit.ly/met_me
2			L2	Tolerance systems		
3			L3	Types of fits, Applications		
4			L4	Hole & Shaft basis Systems, problems		
5			L5	Interchangeability & Selective Assembly		
6			L6	Application of fits		
7			L7	problems		

UNIT II: Linear Measurement, Measurement of Angles and Tapers, Limit Gauges

1	III-I	Mr. Ch.Siva Ramak	L1	Length standards-Line & End standards, Slip Gauges	8	https://bit.ly/met_me
2			L2	Dial indicators Micrometers Different methods for Angles or Tapers Measurement, Bevel Protractor		
3			L3	Micrometers		
4			L4	Different methods for Angles or Tapers Measurement, Bevel Protractor		
5			L5	Angle Slip gauges, Angle Dekkor, Spirit level		
6			L6	Sine Bar, Sine Tables Rollers & spheres used to measure angle & Tapers		
7			L7	Rollers & spheres used to measure angle & Tapers		
8			L8	Limit Gauges, Design of Go & NO-Go gauges, Taylor's Principle		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
UNIT III:Optical Measuring Instruments,Interferometry and Flatness Measurement						
1	III-I Mr. Ch.Siva Ramakrishna	Mr. Ch.Siva Ramakrishna	L1	Optical Measuring Instruments: Tool maker's microscope and uses - Autocollimators	6	https://bit.ly/met_me
2			L2	Optical projector & optical flat.		
3			L3	Interferometry: Principle of Interference of light, Michelson's interferometer		
4			L4	NPL flatness interferometer, and NPL gauge interferometer.		
5			L5	Flatness Measurement:Straight edges		
6			L6	Surface plates – Auto collimator		

UNIT IV:Surface Roughness Measurement and Comparators

1	III-I Mr. S.V.Ramana	Mr. S.V.Ramana	L1	Terms,order of surface roughness, assesment of surface roughness	3	https://bit.ly/met_me
2			L2	Surface roughness measuring Instruments		
3			L3	Different types of comparators		

UNIT V:Gear Measurement,Screw Thread Measurement and

1	III-I (VR17) Mr. S.V.Ramana	Mr. S.V.Ramana	L1	Gear tooth,Different Gear arrangementselements	7	https://bit.ly/met_me
2			L2	Composite error ,Gear tooth tester		
3			L3	Efeective diameter measurement - Different methods		
4			L4	Screw thread -pitch measurement		
5			L5	Alignment tests on Drilling machine		
6			L6	Alignment tests on Lathe machine		
7			L7	Alignment tests on Milling machine		

Name of the Subject: CAD/CAM

UNIT I: Introduction

1	IV-I Dr. N V S Shankar	Dr B Sateesh	L1	Introduction to CAD/CAM	7	https://bit.ly/cadcam
2			L2	Automation , Role of computers in Product cycle and Product Life cycle		
3			L3	3.1 CAD hardware,CPU architecture, Had Copy Devices 3.2 Display Devices 3. Memory Devices		
4			L4	Raster graphics and graphic data base		
5			L5	2D Transformations		
6			L6	3D and Projective transformations		
7			L7	Windowing, Clipping and Hidden surface Removal		

UNIT II:Geometric Modelling

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
1	IV-I	Dr. N V S Shankar	L1	GEOMETRIC MODELING: curve and parametric representation methods	7	https://bit.ly/cadcam_me
2			L2	Cubic Spline		
3			L3	Bezier curve		
4			L4	4.1 Auto CAD drawing Dimensioning 4.2 Auto CAD drawing Editing		
5			L5	Bspline formulation, Properties		
6			L6	AutoCAD layers		
7			L7	Solid modelling		

UNIT III: CNC Machines

1	IV-I	Dr. N V S Shankar	L1	Introduction to NC/CNC	8	https://bit.ly/cadcam_me
2			L2	Structure of CNC Machine Tools (Classification, MCU and its organization, CNC control systems and its functions)		
3			L3	Structure of CNC Machine Tools (Tape reading, Tooling, Feedback Components - Resolvers and Encoders)		
4			L4	Features of CNC Machines (Machining and Turning Centers)		
5			L5	Part Programming - Methods and Computer Aided Part Programming, APT Language-1		
6			L6	APT Language-2		
7			L7	APT Language-3		
8			L8	APT Language-4		

UNIT IV: Group Technology

1	IV-I	Dr B Sateesh	L1	Part family,coding and classification system, type, advantages-importance of Coding system	7	https://bit.ly/cadcam_me
2			L2	Classification systems- Optiz and MI Class		
3		Dr. N V S Shankar	L3	Production Flow Analysis		
4			L4	Holier method		
5		Dr B Sateesh	L5	MRP		
6			L6	Total Quality Management 1		
7			L7	Total Quality Management 1		

UNIT V: COMPUTER INTEGRATED MANUFACTURING SYSTEMS

1	IV-I	Dr. N V S Shankar	L1	COMPUTER INTEGRATED MANUFACTURING SYSTEMS Intro	4	https://bit.ly/cadcam_me
2			L2	Machine tools and Equipment		
3			L3	Material handling systems		
4			L4	HR in production systems		

Name of the Subject: Automobile Engineering

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
UNIT I: Introduction to Automobile Engineering						
1	IV-I	Dr. K. S. Raghuram	L1.1	Introduction to automobile engineering	6	https://bit.ly/ae_m_e
2			L1.2	Transmission system		
3			L1.3	Rear Wheel drive, Front wheel drive		
4			L1.4	Engine Construction		
5			L1.5	Turbo Charging		
6			L1.6	Lubricating system MTS		
UNIT II: Clutch						
1	IV-I	Dr. K. S. Raghuram	L2.1	Clutch, Principle types of clutches	8	https://bit.ly/ae_m_e
2			L2.2	Cone clutch, Single plate clutch		
3			L2.3	Magnetic Clutch, Centrifugal Clutch		
4			L2.4	Types of gearboxes - Sliding mesh Gearbox		
5			L2.5	Constant mesh and synchro mesh gearbox		
6			L2.6	Epicyclic gearbox, over drive, torque converter		
			L2.7	Propeller shaft - Hotchkiss drive, torque tube drive		
III			L2.8	Universal Joint, Differential, types of rear axle, wheels and tyres		
Unit - III Steering System						
1	IV-I	Mr. Y. Phanindra	L3.1	Steering geometry	8	https://bit.ly/ae_m_e
2			L3.2	Steering linkage, steering gears - types		
3			L3.3	Steering linkages - Steering gears - Types		
4			L3.4	Rigid axle suspension system - Torsion bar		
5			L3.5	Independent suspension system - Shock absorber		
6			L3.6	Mechanical brakes, Hydraulic brakes		
7			L3.7	Tandem Master Cylinder		
8			L3.8	Pneumatic and hydraulic braking system		
UNIT IV: Electrical System						
1	IV-I	Mr. Y. Phanindra	L4.1	Charging circuit, generator, current, Voltage regulator	8	https://bit.ly/ae_m_e
2			L4.2	Starting system - Bendix drive, lighting circuit		
3			L4.3	Horn, Wiper, Fuel gauge		
4			L4.4	Engine Specifications -1		
5			L4.5	Engine Specifications - 2		
6			L4.6	Safety system - Airbags		
7			L4.7	Wind shield, suspension sensors, traction control		
8			L4.8	Mirrors, Centre locking and electrical windows, Speed Control		
UNIT V: Emissive Control & Service						

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
1	IV-I	Dr. K. S. Raghuram	L5.1	Introduction to emission of automobile	8	https://bit.ly/aem
2			L5.2	Methods of emission control		
3			L5.3	use of alternative fuels for emission control		
4			L5.4	National & International Pollution standards		
5			L5.5	Engine Service		
6			L5.6	Service of valves and valve mechanism		
7			L5.7	Piston, Connecting rod assembly		
8			L5.8	Cylinder block, crankshaft and main bearings, engine assembly - Precautions		

Name of the Subject: Power Plant Engineering

UNIT I: Steam Power Plant

1	IV-I	Mrs. B. Pavani Sri Kavya	L1	sources of energy	6	https://bit.ly/ppe
2			L2	Steam power plant layout		
3			L3	Coal handling system		
4			L4	fuel burning system		
5			L5	pulversation fuel burning system		
6			L6	Ash Handling system		

UNIT II: Internal Combustion and Gas Turbine Power Plant

1	IV-I	Mrs. B. Pavani Sri Kavya	L1	diesel power plant layout	6	https://bit.ly/ppe
2			L2	Fuel and air supply systems		
3			L3	super charging		
4			L4	Gas turbine power plant		
5			L5	classification of gas turbines		
6			L6	combined cycle		

UNIT III: Hydro Electric Power Plant

1	IV-I	Mr.Sunil	L1	Introduction to water power and Hydrological Cycle	6	https://bit.ly/ppe
2			L2	Drainage area characteristics, Hydrographs		
3		Mr.R.Rudrabhi Ramu	L3	Classification of dams and spillways		
4			L4	Hydro projects and PlantsClassification		
5			L5	Auxillary Plant operations		
6			L6	Problem on load curve		

UNIT IV: Nuclear Power Station

1	IV-I	Dr.K.S.Raghuram	L1	Nuclear fuel,breeding and fertile material, nuclear reactor principle	6	https://bit.ly/ppe
2			L2	Types of Reactors		
3			L3	Combined operations of different Power stations		
4			L4	Pumped storage plant with steam and nuclear		
5			L5	Pumped storage plant with steam and nuclear		
6			L6	Coordination of Hydro electric and gas turbine Power station		

UNIT V: Power Plant Instrumentation

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
1	IV-I	Mrs. B. Pavani Sri Kavya	L1	Importance of measurement and instrumentation in power plant	7	https://bit.ly/ppe_me
2			L2	measurement of water purity, gas analysis, O ₂ and CO ₂ , nuclear measurements.		
			L3	Power Plant Economics		
			L4.1	Problem on Power Plant Economics		
3			L4.2	Problem on Power Plant Economics		
			L5	Problem on Power Plant Economics		
4			L6	Power Plant Pollutants and its control		

Name of the Subject: Refrigeration & Air Conditioning

UNIT I: Introduction to Refrigeration

1	IV-I	Mr.R.Rudrabhi Ramu	L1.1	Introduction to Refrigeration & Air Conditioning	7	https://bit.ly/rac_me
2			L1.2	Methods of Refrigeration & Reversed Carnot Cycle		
3			L2	Air Refrigeration Cycle		
4			L3	Analysis of Air Refrigeration Cycle		
5			L4	Aircraft Refrigeration Systems		
6			L5	Aircraft Refrigeration Systems		
7			L6	Aircraft Refrigeration Systems		

UNIT II: Vapour Compression Refrigeration System

1	IV-I	Mrs.V.Savitri	L1	Working of VCR System	5	https://bit.ly/rac_me
2			L2	T-S & P-H Charts - VCR System		
3			L3	Problems on VCR System		
4			L4	Problems on VCR System		
5			L5	Problems on VCR System		

UNIT III: Refrigerants & VCR Components

1	IV-I	Mrs.V.Savitri	L1	Classification of Refrigerants	5	https://bit.ly/rac_me
2			L2	Classification of Compressors		
3			L3	Classification of Condensers		
4			L4	Classification of Evaporators		
5			L5	Classification of Expansion Devices		

UNIT IV: Vapour Absorption System & Steam Jet Refrigeration System

1	IV-I	Mr.R.Rudrabhi Ramu	L1	Introduction to Vapour Absorption , steam jet and non conventional refrigeration system	5	https://bit.ly/rac_me
2			L2	Working Principle of Simple Vapour Absorption system		
3			L3	Working Principle of Electrolux Refrigeration system		
4			L4	Working Principle of Steam Jet Refrigeration system		
5			L5	Working Principle of Non Conventional Refrigeration system		

UNIT V: Introduction to Air Conditioning

1		L1	Introduction to Air Conditioning		
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S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
2	IV-I	Mr.R.Rudrabhi Ramu	L2	Psychrometric Processes	7	https://bit.ly/rac_m_e
3			L3	Bypass factor of Heating and cooling coil		
4			L4	Problems on Psychrometric		
5			L5	Properties of Psychrometry		
6			L6	Heat Pump		
7			L7	Types of Air conditioning Systems		

Name of the Subject: Additive Manufacturing

UNIT I: Introduction: Liquid based Rapid Prototyping Systems

1	IV-1	Dr. V S V Satyanarayana	L1	Introduction to Additive Manufacturing	8	http://bit.ly/am_m_e
2			L2	Introduction to Liquid based RP Systems		
3			L3	Liquid based RP systems		
4			L4	Sterolithography Apparatus		
5			L5	Photopolymerization		
6			L6	Case Studies of SLA		
7			L7	Solid Ground Curing process		
8			L8	SGC process: Applications, Merits and Demerits		

UNIT II: Solid based Rapid Prototyping Systems

9	IV-1	Dr. V S V Satyanarayana	L1	Laminated Object Manufacturing (LOM)	6	http://bit.ly/am_m_e
10			L2	Applications of LOM		
11			L3	Case Studies of LOM		
12			L4	Fused Deposition Modeling (FDM)		
13			L5	FDM: Applications, Merits and Demerits		
14			L6	Case Studies of FDM		

UNIT III: Powder based Rapid Prototyping Systems & Rapid Tooling

15	IV-1	Mr. Ashit Kumar Meher	L1	Selective Laser Sintering process (SLS)	6	http://bit.ly/am_m_e
16			L2	SLS: Applications, Merits and Demerits		
17			L3	Inkjet 3DP process		
18			L4	Introduction to Rapid Tooling		
19			L5	Indirect Rapid Tooling Methods		
20			L6	Direct Rapid Tooling Methods		

UNIT IV: RP Data formats and Softwares

21	IV-1	Mr. Ashit Kumar Meher	L1	STL file Format	6	http://bit.ly/am_m_e
22			L2	STL file Problems and Repair		
23			L3	Inkjet 3DP process		
24			L4	RP systems Data formats		
25			L5	RP Softwares -1		
26			L6	RP Softwares -2		

UNIT V: RP Applications

27			L1	Application of RP in Engineering Analysis and Planning		
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S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
28	IV-1	Mr. Ashit Kumar Meher	L2	Application of RP in Aerospace and Automotive industries	5	http://bit.ly/am_mehe
29			L3	Application of RP in Engineering Industries		
30			L4	Application of RP in Medical and Bioengineering		
31			L5	Application of RP in Forensic and Anthrapology		



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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING
Digital Content Developed by Faculty during Academic Year 2020-2021

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
Name of the Subject: Managerial Economics and Financial Analysis						
UNIT I: Introduction to Managerial Economics and demand Analysis						
1	II-I	Mrs.Audhati Datta	L1	Introduction to Managerial Economics	8	https://youtu.be/SpqDjWex4Eg
2			L2	Nature, Scope and Relationship of Managerial Economics		https://youtu.be/KoDJJrafWJg
3			L3	Concept of Demand and Types		https://youtu.be/_uIABS-ihMc
4			L4	Law of Demand and Exceptions		https://youtu.be/rK9PAYQLHMY
5			L5	Elasticity of Demand and Types		https://youtu.be/iwbZ1tA90fw
6			L6	Measurements of Elasticity of Demand		https://youtu.be/4CLqQvc7ud8
7			L7	Demand Forecasting and Methods		https://youtu.be/zuGsFgizv3o
8			L8	Law of Demand and Exceptions		https://youtu.be/vvuABrExzIg
UNIT II: Production and Cost Analyses						
1	II-I	Mrs.Audhati Datta	L1	Cobb Douglas and Leontief Production Function	8	https://youtu.be/Cb6qA2hcEm4
2			L2	Law of Variable Proportion		https://youtu.be/kCvS0mnsQRk
3			L3	Isoquant and Isocost		https://youtu.be/naQ-5FaVAAU
4			L4	Law of Returns to Scale		https://youtu.be/gtsE82uyZj0
5			L5	Economies and Diseconomies to Scale		https://youtu.be/4zhsQnQx5W0
6			L6	Cost Concepts and Types		https://youtu.be/QEG5YT06M7w
7			L7	Cost Output Relationship in Short And Long Run		https://youtu.be/ucz3TuLSW2M
8			L8	Break Even Analysis With Simple Problems		https://youtu.be/ttCa9mWJ-xE
UNIT III: Introduction to Markets, Theories of the Firm & Pricing Policies						
1	II-I	Mrs.K.V.S.Praveena	L1	Introduction To Markets	7	https://youtu.be/sq5kxEH-DkE
2			L2	Perfect Competition		https://youtu.be/3LvSBNouAes
3			L3	Monopoly Competition		https://youtu.be/GdEuNiCWNyU
4			L4	Monopolistic Competition		https://youtu.be/P8guHKf_uP4
5			L5	Oligopoly Competition		https://youtu.be/KAQOvvf7j4k
6			L6	Theories Of The Firm		https://youtu.be/xFnLMgsawpc
7			L7	Pricing Policy		https://youtu.be/2RiAU7Vbtr4
UNIT IV: Types of Business Organization and Business Cycles						
1	II-I	Mr.V.Sivajee	L1	Sole Proprietorship	5	https://youtu.be/L-4oysvCh2k
2			L2	Partnership		https://youtu.be/c78hkPUtbhM
3			L3	Joint Stock Company		https://youtu.be/Y6rMLphs-QU
4			L4	Public Enterprises		https://youtu.be/cFA8CbNaVu8
5			L5	Business Cycle		https://youtu.be/UNLRRrG-7lM
UNIT V: Introduction to Accounting and Capital Budgeting Decisions						
1			L1	Introduction of Accounting		https://youtu.be/qJ7H2R9W_Ck
2			L2	Principle of Accounting, Systems of Accounting		https://youtu.be/fMHkOoW9g50

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
3	II-I	DR.P.Sanyasi Naidu	L3	Account and the Concept of Accounting Cycle	13	https://youtu.be/nGoDGQVb8co
4			L4	Preparation of Journals		https://youtu.be/aLj4f7hFXp4
5			L5	Preparation of Journals With Example		https://youtu.be/33uBKyDeJcQ
6			L6	Preparation of Journals and Ledgers		https://youtu.be/2FUDwP-dauA
7			L7	Formats for Preparation of Financial Statements		https://youtu.be/Zt0bpjS2-Uo
8			L8	Preparation of Financial Statements		https://youtu.be/ScLXhiP_OvM
9			L9	Preparation of Financial Statements With Adjustments		https://youtu.be/uifSCCc9QTdU
10			L10	What Is Capital?, Introduction to Capital Budgeting Estimation of Cash in Flows		https://youtu.be/7-Vtf27KhN4
11		Dr.T.Archana Acharya	L11	Pay Back Period, Accounting Rate of Return		https://youtu.be/4y8bxkbFqwM
12			L12	Time Value of Money		https://youtu.be/DLykRqHjiuk
13			L13	Net Present Value, Internal Rate of Return, Profitability Index		https://youtu.be/_UYuRRSWpXM

Name of the Subject: Signals and System

UNIT I: SIGNAL ANALYSIS

1	II-I	Mr. Hemanta Kumar Sahu	L1	Introduction of Signals	13	https://youtu.be/OglUjcx0jkE
2			L2	Sketch the Discrete Time Signals		https://youtu.be/wTAN3T1HzM
3			L3	Mathematical Operations on Signals		https://youtu.be/RijZ9I2YuCQ
4			L4	Operations on Signals - 1		https://youtu.be/lEg-s5DiOxs
5			L5	Operations on Signals - 2		https://youtu.be/PwFjlIn4ZrM
6			L6	Addition Operation on Signal		https://youtu.be/duVYf5iRGE
7			L7	Multiplication Operation on Signal		https://youtu.be/G5Cm3rzfxvQ
8			L8	Integration and Differentiation of the Signals		https://youtu.be/gSBxuC7Yqz4s
9			L9	Signal Classification		https://youtu.be/REdzhgPUsIA
10			L10	Energy and Power Signal		https://youtu.be/wwffPEVgA1w
11			L11	Casual, Even and Odd Signals		https://youtu.be/bL4hZ_f0h4
12			L12	System and System Classification		https://youtu.be/KcOqyXI6Hc8
13			L13	Linear and Non Linear Systems, Time Variant and Time Invariant Systems, Stable and Astable Systems		https://youtu.be/b8I_vyzJjjE

UNIT II: FOURIER SERIES & FOURIER TRANSFORMS

1	II-I	Mrs. R. Aamani	L1	Introduction to Fourier Series	12	https://youtu.be/B8LTlbs2v1k
2			L2	Problems on Fourier Series		https://youtu.be/qhf2MoY1JWs
3			L3	Even Symmetry		https://youtu.be/iEB0lskmoA
4			L4	Odd Symmetry		https://youtu.be/C1Y012wqQDn
5			L5	Fourier Series and Fourier Transform of Impulse Train		https://youtu.be/UXI91QhVSdl
6			L6	Properties of Fourier Series		https://youtu.be/V36fWbG9vnI
7			L7	Parseval's Theorem of Fourier Series		https://youtu.be/2XevICDSrSA
8			L8	Properties of Fourier Transforms - 1		https://youtu.be/FaAZ3KvkV7k
9			L9	Properties of Fourier Transforms - 2		https://youtu.be/AyyizVi_jrI
10			L10	Fourier Transform of Exponential Signals		https://youtu.be/gK_uMvNB_cWL
11			L11	Fourier Transform of Periodic Signals		https://youtu.be/ARzl6awnaiY

UNIT III: CONCEPT OF SAMPLING & SIGNAL TRANSMISSION THROUGH LINEAR SYSTEMS

1	II-I	Mr.Ramesh patro	L1	Sampling Theorem and Signal Reconstruction	5	https://youtu.be/VDIYijmZMIA
2			L2	Distortion less Signal Transmission through LTI System		https://youtu.be/pumLmRdL8wc
3			L3	Impulse Response and Convolution		https://youtu.be/kQATNEpdQXG0t1
4			L4	Why LTI System?		https://youtu.be/XgOh8p8MZmg
5			L5	Basic Classification of Filter		https://youtu.be/ckz8udSmtw

UNIT-IV: CONVOLUTION AND CORRELATION OF SIGNALS

1			L1	Significance of LTI Systems		https://youtu.be/o7qF6xQSJo
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S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
2	II-I	Mr.Ramesh patro	L2	Impulse response and convolution	11	https://youtu.be/W4NhZlxCK48
3			L3	Properties of Convolution		https://youtu.be/X9jUYBruFGk
4			L4	Graphical convolution		https://youtu.be/cg3vkcl28Pw
5			L5	Convolution Example - 1		https://youtu.be/vPaNKdYeaEM
6				Convolution Example - 2		https://youtu.be/K-r5vFpr3YQ
7				Convolution Example - 3		https://youtu.be/WLH9ZoEfwwI
8				Convolution Example - 4		https://youtu.be/TCQmHf0SOZW
9			L6	Properties of LTI Systems		https://youtu.be/V6F1FLwyh8s
10			L7	Correlation function and its application		https://youtu.be/sPRHOUS95Z8
11			L8	Auto Correlation, Energy Spectral Density and Parseval's Identity		https://youtu.be/CKG8fPhq-UU

UNIT-V:LAPLACE TRANSFORMS & Z-TRANSFORMS

1	II-I	Mrs.Srumthi Das	L1	Introduction to Laplace Transform	16	https://youtu.be/Ig_ExbgGusA
2			L2	Region of Convergence (ROC) - 1		https://youtu.be/15XGVfmy40M
3			L3	Region of Convergence (ROC) - 2		https://youtu.be/1D6C...
4			L4	Properties of Laplace Transforms		https://youtu.be/62nw19ivVmU
5	II-I	Mr.Ramesh patro	L5	Discrete Signal or Sequence Representation		https://youtu.be/6FBbyh15_WI
6			L6	What is Z - Transform?		https://youtu.be/lBMT9-Q447Y
7			L7	Properties of Z - Transform		https://youtu.be/WmLhACQVYv
8			L8	Relation between Z - Transform and Laplace Transform		https://youtu.be/nL65NPTxicQ
9			L9	Region of Convergence in Z - Transform		https://youtu.be/ksjnqfzrOrA
10			L10	Sampling Theorem & Reconstruction		https://youtu.be/aXzWuCtHzFQ
11			L11	Z - Transforms Problems - 1		https://youtu.be/ZAzPqSSD9Rc
12				Z - Transforms Problems - 2		https://youtu.be/C11DZLA0124
13				Z - Transforms Problems - 3		https://youtu.be/tDNgC-pxJMQ
14			L12	Inverse Z - Transforms Problems - 1		https://youtu.be/l9VFUIPsLK8
15				Inverse Z - Transforms Problems - 2		https://youtu.be/hWMp94v_aOc
16				Inverse Z - Transforms Problems - 3		https://youtu.be/JTzKuRXCyhU

Name of the Subject:EDC

UNIT-I:Junction Diode Characteristic

1	II-I	Mrs.R.Uma Maheswari	L1	Introduction to semiconductors	10	https://youtu.be/qRHCJib5sYs
2			L2	Intoduction to open circuit pn junction		https://youtu.be/s54KDnlIVq4
3			L3	Biased pn junction		https://youtu.be/iosafDXtesQ
4			L4	Energy band diagram of a open circuit pn junction		https://youtu.be/TUmyNKL2i_Q
5			L5	Diode capacitances - 1		https://youtu.be/QUCET1WQyA
6			L6	Diode capacitances - 2		https://youtu.be/a0M18cVTca4
7			L7	Zener diode characteristics		https://youtu.be/YNovXIm52K8
8	Mrs.P.Suneetha	Mrs.N.Bhuvaneswari	L8	LED		https://youtu.be/wlKWl7YBs8U
9			L9	Photo diode		https://youtu.be/mzBphnt853g
10			L10	Effect of temp on reverse saturation		https://youtu.be/OQ-fml0Vhec

UNIT-II:Special Diodes and Switching Devices and Rectifiers and Filters

1	II-I	Mrs.R.Uma Maheswari	L1	Rectifiers	8	https://youtu.be/JfydjWORf9g
2			L2	Varacter diode		https://youtu.be/VCqZJ1Wf
3			L3	Tunnel Diode		https://youtu.be/-43t_V2dT_w
4			L4	Half Wave Rectifier		https://youtu.be/e1E3943oqFI
5			L5	Full Wave Rectifier		https://youtu.be/EW6M0k01hee
6			L6	Bridge Wave Rectifier		https://youtu.be/MqN1h09isW8
7			L7	Capacitive filter		https://youtu.be/RHfG0jkmlQc
8			L8	Inductive Filter and Comparison of Filters		https://youtu.be/QLvEdq0Ay4M

UNIT-III:Transistor & FET Characteristics

1	Mrs.R.Uma Maheswari		L1	Classification and types of transistors		https://youtu.be/ZFIKXU32o_E
2			L2	CB configuration		https://youtu.be/7YLqATlyrj0

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content			
3	II-I	Mrs.R.Uma Maneswari	L3	FET	5	https://youtu.be/T12FUT209Aw			
4			L4	JFET		https://youtu.be/qETdnJxZy3w			
5			L5	SCR		https://youtu.be/K4bWgKOJ4qw			
UNIT-IV: Transistor Biasing and Thermal Stabilization									
1	II-I	Mr.B.Naveen Kumar	L1	Load line and operating point Need for biasing fixed bias collector base	5	https://youtu.be/ODMVA7Lz1tU			
2			L2	base bias configuration		https://youtu.be/dQg0J1B_Mug			
3			L3	collector base bias configuration		https://youtu.be/30pqf_chmz0			
4			L4	voltage divider bias configuration		https://youtu.be/WkPzbjq0egQ			
5			L5	compensation methods		https://youtu.be/kbkwKEnuhSw			
UNIT-V: Small Signal Low Frequency Transistor Amplifier Models									
1	II-I	Mr.B.Naveen Kumar	L1	Small signal model of a BJT and analysis	5	https://youtu.be/6_TmEghiLxc			
2			L2	CE & CB amplifier using exact n		https://youtu.be/YKuZvRxwV60			
3			L3	analysis of transistor amplifier using		https://youtu.be/NHlgsM18ka8			
4			L4	fixed bias collector to base bias and se		https://youtu.be/k4XtMGbeor0			
5			L5	CE & CB using simplified n parameter		https://youtu.be/9EKsxFdo_M			
Name of the Subject: Analog Communications									
UNIT-I: AMPLITUDE MODULATION									
1	II-I	Mrs. P. Nalini	L1	Introduction to Communication system	10	https://youtu.be/9qn-zLdLHPQ			
2			L2	Need for modulation		https://youtu.be/s5fjoxhElvc			
3		Mr. G. Thiagarajan	L3	Frequency Division Multiplexing		https://youtu.be/0HeIQJ38LoU			
4			L4	Amplitude Modulation		https://youtu.be/MCjeSAjCCAY			
5		Mrs. P. Nalini	L5	Frequency spectrum of AM		https://youtu.be/xR3ou6At16Q			
6			L6	Power calculations of AM		https://youtu.be/LCtp61ePOEs			
7			L7	Generation of AM waves, Square law		https://youtu.be/IRPC6bg3fzc			
8			L8	Switching modulator		https://youtu.be/OdFIInAKeKwo			
9			L9	Square law detector		https://youtu.be/AogmoOhjWFA			
10			L10	Envelope detector		https://youtu.be/AJIYVR0vhk			
UNIT-II: DSB & SSB MODULATION									
1	II-I	Mr. G. Thiagarajan	L1	dsb modulation - 1	6	https://youtu.be/sn0rOJMwLzo			
2			L2	dsb modulation - 2		https://youtu.be/lslu9ERXz8M			
3			L3	ssb modulation - 1		https://youtu.be/p-IrOpk2Dhg			
4			L4	ssb modulation - 2		https://youtu.be/uC338PavIQY			
5			L5	ssb modulation - 3		https://youtu.be/OSigUaX84mw			
6			L6	vsb modulation		https://youtu.be/zpXjRc99xH0			
UNIT-III: ANGLE MODULATION									
1	II-I	Mrs. P. Nalini	L1	basic concepts of frequency modulation	7	https://youtu.be/CcX1kSd725A			
2			L2	Narrow band FM Wide band Fm, Bandwidth and Power in FM		https://youtu.be/g3n2DP2o5ak			
3		Mr. G. Thiagarajan	L3	generation of FM waves - 1		https://youtu.be/q06ZqzF0XoE			
4			L4	generation of FM waves - 2		https://youtu.be/g8PNaEkJaYQ			
5			L5	detection of FM waves - 1		https://youtu.be/Z4_800hkZ_Q			
6			L6	detection of FM waves - 2		https://youtu.be/imdhVTR6jUU			
7			L7	detection of FM waves - 2		https://youtu.be/8volmGqA-LA			
UNIT-IV: RADIO TRANSMITTERS & RECEIVERS									
1	II-I	Mrs. P. Nalini	L1	Radio transmitters and types of AM	7	https://youtu.be/H7jOiCPBXI			
2			L2	FM transmitters		https://youtu.be/ZIANrLqrIA			
3			L3	Radio receivers		https://youtu.be/0xu2DP5n38Y			
4			L4	Linear radio frequency and		https://youtu.be/TwOJ4IUSLig			
5			L5	Receiver Characteristics		https://youtu.be/ZipCJl4Eoog			
6			L6	FM Receiver and RF Amplifier		https://youtu.be/xXQvawVKh-Y			
7			L7	Discussion of Automatic Gain Control		https://youtu.be/tbz_nfdCJ8Y			
UNIT-V: NOISE IN COMMUNICATION SYSTEMS & PULSE MODULATION									
1	II-I	Mr. G. Thiagarajan	L1	Noise and Noise Sources	6	https://youtu.be/-pM-ORzLGrQ			
2			L2	Narrow band noise and noise figure		https://youtu.be/aYYcb1HrqcM			
3			L3	Figure of merit calculation in amplitude		https://youtu.be/foiV4KZLIVQ			
4			L4	Noise in Angle Modulation System		https://youtu.be/c-TLiviBcw			
5			L5	Pulse modulation and Time division		https://youtu.be/Ohks0XZEnPg			
6			L6	Generation and demodulation of PAM, PWM and PPM		https://youtu.be/-IqVYDm87OY			

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content			
Name of the subject:STLD									
UNIT-I:NUMBER SYSTEMS & CODES									
1	II-I	Dr.S.V.Jagadeesh Chandra	L1	Introduction	7	https://youtu.be/fYLx3Hss_Lw			
2			L2	Number Systems		https://youtu.be/E-W6LJNgKPA			
3			L3	Complements and Subtractions		https://youtu.be/uqXUi-xDYV4			
4			L4	Conversion of Number Systems		https://youtu.be/uNBCA2kVqYk			
5			L5	Logic Gates		https://youtu.be/rTAL8RfY4cs			
6			L6	Hamming Code		https://youtu.be/lL5vAHLb8iU			
7			L7	NAND, NOR Realization		https://youtu.be/pmuZ_cmIVCA			
UNIT-II:MINIMIZATION TECHNIQUES AND COMBINATIONAL LOGIC CIRCUITS-I									
1	II-I	Dr.S.V.Jagadeesh Chandra	L1	Boolean Algebra	4	https://youtu.be/Je5X0X4BLw4			
2			L2	Minimization of Logic Functions		https://youtu.be/w7AcxUulk_g			
3			L3	Minimization using K-map		https://youtu.be/hc75pMHuxeY			
4			L4	Combinational Circuits -1		https://youtu.be/eKw3yiiFtug			
UNIT-III:COMBINATIONAL LOGIC CIRCUITS-II									
1	II-I	Mr.D.Madhusudhan	L1	Decoder	4	https://youtu.be/mfwQmzICp59Q			
2			L2	Multiplexer		https://youtu.be/BaPPVoZZ-4A			
3			L3	Encoder		https://youtu.be/2c4GI4_BqkU			
4			L4	Programmable Logic Devices		https://youtu.be/j1ropKhkF5c			
UNIT-IV:SEQUENTIAL CIRCUITS- I									
1	II-I	Mrs.Ch.Sravani	L1	flipflops SR,	8	https://youtu.be/vhIfS10BFCQ			
2			L2	flipflops JK,T and D		https://youtu.be/_IsobLzcNeA			
3			L3	excitation table, problems		https://youtu.be/yRCSC0jsuhY			
4			L4	Introduction to Counters		https://youtu.be/Mb1svXuHaas			
5			L5	Synchronous Counters		https://youtu.be/zAPcu_f8ERI			
6			L6	Asynchronous Counters		https://youtu.be/XtwRsxFzHxM			
7			L7	Shift registers		https://youtu.be/VuvloHU_zUQ			
8			L8	Flip Flop Conversion		https://youtu.be/IMN14ymh5hY			
UNIT-V:SEQUENTIAL CIRCUITS-II									
1	II-I	Mrs.Ch.Sravani	L1	Introduction	4	https://youtu.be/mqWGxElhV0o			
2			L2	State Diagram		https://youtu.be/pIoPHzXrcSM			
3			L3	State Table Reduction		https://youtu.be/8XMXD7wPdiE			
4			L4	Mealy Moore Conversions		https://youtu.be/711WzGzLja			
Name of the Subject:Linear Integrated Circuits and Applications									
UNIT-I:Integrated Circuits									
1	III-I	Mr.V.Appala Raju	L1	Dual input balanced output differential	7	https://youtu.be/59MK_7Eq9EU			
2			L2	DC Analysis of differential Amplifier		https://youtu.be/h2D0Dwep0QA			
3			L3	AC analysis of dual input unbalanced		https://youtu.be/8CselaTy6ik			
4			L4	Single input balanced output differential		https://youtu.be/PWJ_wEr_HkU			
5			L5	Single input unbalanced output		https://youtu.be/Y4r8e8N4hVQ			
6			L6	Cascaded Differential amplifier, Lever		https://youtu.be/3X4MlEeNF1Y			
7			L7	Introduction ,block diagram of		https://youtu.be/Lkk2T5iqCoc			
UNIT-II:Characteristic of Op-Amp									
1	III-I	Mrs.N.Bhuvaneswari	L1	Inverting Amplifier and non inverting	6	https://youtu.be/50MvczXUGZs			
2			L2	Actual and practical characteristics of op		https://youtu.be/xoKdUT4xn1c			
3			L3	DC Characteristics of OP Amp		https://youtu.be/DEk7bqEsWL8			
4			L4	AC characteristics of op amp		https://youtu.be/iWV3CGRpYFk			
5			L5	Frequency compensation		https://youtu.be/K09VrEMu9hc			
6			L6	op amp parameters and measurements		https://youtu.be/lz8MId4lbjE			
UNIT-III:Applications of Op-Amp									
1	III-I	Mr.V.Appala Raju	L1	summing scaling and averaging amplifier	11	https://youtu.be/qWqUmVxZ_x1			
2			L2	Difference amplifier		https://youtu.be/e_DpPeWjkxE			
3			L3	Integrator		https://youtu.be/MFiJuUjd0vw			
4			L4	Differentiator		https://youtu.be/xKSEYhIBy4w			
5			L5	Instrumentation Amplifier		https://youtu.be/CA30kyTR79Q			
6			L6	AC Amplifier , v to i and i to v		https://youtu.be/ZhRrfyQhnQ			

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
7			L7	Comparator		https://youtu.be/6ymRRKsSGnK
8			L8	Schmitt Trigger		https://youtu.be/YZKtV0JvIc
9			L9	Log Amplifier		https://youtu.be/L3tHmzBf2mo
10			L10	Antilog Amplifier		https://youtu.be/vnpA1MPE8to
11			L11	Precision Rectifiers		https://youtu.be/tbaAgtEFUWE
			UNIT-IV: Active Filters and Timers			

1	III-I	Mrs.N.Bhuvaneswari	L1	Introduction	13	https://youtu.be/7m9l3ZxOS68
2			L2	First order filter		https://youtu.be/THntle9pZxE
3			L3	Second order filter		https://youtu.be/ahRQgHQbESY
4			L4	second order low pass filter		https://youtu.be/WhcZXn80Wps
5			L5	second order high pass filter		https://youtu.be/OiRHLoptgg
6			L6	second pass filter		https://youtu.be/CqTtCDjMkLzI
7			L7	All Pass Filter		https://youtu.be/s077NjhogTw
8			L8	Second order band reject filter filter		https://youtu.be/0OAbrVTsMu0
9			L9	555 timer		https://youtu.be/ShvKY1qZR14
10			L10	Astable Multivibrator		https://youtu.be/rI2_1Bhndxs
11			L11	Monostable multivibrator		https://youtu.be/uxas-l3FHO8
12			L12	VCO		https://youtu.be/cFlvncob0iU
13			L12	PLL		https://youtu.be/h1O_58Ny-kg

Name of the Subject:Digital Communications

UNIT-I: Pulse Digital Modulation						
1	III-I	Mrs.P.Suneetha	L1	Elements of digital communications	8	https://youtu.be/LmbxwFGY9jQ
2			L2	Elements of PCM		https://youtu.be/eG9wllg5McE
3		Mrs.K.Lakshmi	L3	Signal to noise ratio of PCM		https://youtu.be/EqJyPSxMmSw
4			L4	Problem on signal to noise ratio of PCM		https://youtu.be/oPcYuepaWF0
5			L5	Companding in PCM		https://youtu.be/wmDzLzLwtn
6			L6	DPCM modulation and demodulation		https://youtu.be/z-nXTblVOh4
7			L7	comparision between pCM and DM		https://youtu.be/AFbLN-nvvuU
8		Mrs.K.Lakshmi	L8	Delta modulation and demodulation and		https://youtu.be/zuKEgg-DvgY

UNIT-II: Modulation Techniques						
1	III-I	Mrs.Y.Sukanya	L1	Gramschmitt Orthogonality Procedure	7	https://youtu.be/74ag0CGtfV0
2			L2	Bandpass modulation techniques,		https://youtu.be/ciMONzvmeJc
3		Mrs.K.Lakshmi	L3	Frequency shift keying		https://youtu.be/LWtLcLsngJWz
4			L4	Phase shift keying		https://youtu.be/DEm3_XRKc6c
5			L5	Differential Phase Shift Keying (DPSK)		https://youtu.be/i9m-jAPgCM0
6		Mrs.P.Suneetha	L6	M-ary ASK, PSK		https://youtu.be/d6_xy9GnxFo
7		Mrs.K.Lakshmi	L7	QPSK, Similarity of BFSK and BPSK		https://youtu.be/FCPJmiFJA_s

Unit-III: Data Transmission						
1	III-I	Mrs.Y.Sukanya	L1	Baseband Signal Receiver -1	9	https://youtu.be/GeGk1NTcZlk
2			L2	Baseband Signal Receiver - 2		https://youtu.be/69mh_x-k32o
3			L3	Probability of Error (Baseband Signal Receiver)		https://youtu.be/iaf3Qqx-w0
4			L4	Optimum Filter		https://youtu.be/KXTLrQ2yd5I
5			L5	Matched Filter		https://youtu.be/QeLfxBlA9B8
6			L6	Probability Error of ASK		https://youtu.be/nM19dIGDzBQ
7			L7	Probability Error of FSK		https://youtu.be/idPS5Ud-2vCk
8			L8	Probability Error of PSK		https://youtu.be/VsOuiUtMyDI
9			L8	Coherent Reception, Non Coherent		https://youtu.be/CIILDLi0MrS

Unit-IV: Information Theory						
1	III-I	Mrs.K.Lakshmi	L1	Discrete messages, Concept or amount of information	7	https://youtu.be/xU0TkGcpPXw
2			L2	Entropy and its properties, Information		https://youtu.be/1c6DLGUmfal
3			L3	Joint Entropy, Conditional Entropy,		https://youtu.be/zZ926UhaWcM
4			L4	Source Coding		https://youtu.be/h1TWqPPYi_w
5			L5	Shannons Theorem and Shannons Parity Theorem		https://youtu.be/LiTwbngJcg
6			L6	Source Coding Techniques (Examples)		https://youtu.be/8HXmtSI4adY
7			L7	Channel Capacity and Classification of Channels		https://youtu.be/VnbWdytj8Ek

Linear Block Codes and Convolution codes						
1			L1	Linear Block Coding Introduction		https://youtu.be/_TsuRf2b7BM

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2	III-I	Mrs.P.Suneetha	L2	Hamming Codes	6	https://youtu.be/HX1Cm2rh0X0
3			L3	Convolution Introduction and Encoding		https://youtu.be/hEiyb0od-dE
4			L4	Convolution Decoding		https://youtu.be/WcZNJZb7x1U
5			L5	Cyclic Encoder and Decoder		https://youtu.be/4kNpqXu91UY
6			L6	Transform Domain		https://youtu.be/dggcfdhbSJ

Name of the Subject:CAO

UNIT-I:Basic Structure Of Computers									
1	III-I	Mrs.M.Karuna	L1	Introduction to Computer Architecture	6	https://youtu.be/gpyvnkdmahs			
2			L2	Functional units		https://youtu.be/QYERv3ax7Gk			
3			L3	Basic Operational Concepts		https://youtu.be/PZvnBTmZUdE			
4			L4	Bus structures, System Software		https://youtu.be/yvnCr169NqM			
5			L5	Performance		https://youtu.be/SIIINjgSn_kkk			
6			L6	Von Neumann Architecture, Harvard Architecture		https://youtu.be/JOCAmAQiDil			
Unit-II:Machine Instruction and Programs and ARM Processor									
1	III-I	Mrs.M.Karuna	L1	Instruction and instruction Sequencing.	5	https://youtu.be/OfZt4h1Uz6Y			
2			L2	Basic Input/output Operations		https://youtu.be/l68NNyIXI4s			
3			L3	The role of Stacks and Queues in component of instructions.		https://youtu.be/NjJzjzohP0c			
4			L4	ARM Processor: Arithmetic and Logic Instructions		https://youtu.be/9lvUCcT1UzA			
5		Mrs. A. Usha Rani	L5	ARM Processor: Arithmetic and Logic Instructions		https://youtu.be/Zl9mV5swFsy			
UNIT-III:Processing Unit and Micro Programmed Control									
1	III-I	Mrs.M.Karuna	L1	Fundamental Concepts, Registers	4	https://youtu.be/TMasQrlGTMc			
2			L2	Teaching a Function Method,		https://youtu.be/aLDddR6sq80			
3			L3	Hardwired Control		https://youtu.be/ADHmUATXyo			
4		Mrs. A. Usha Rani	L4	Micro Programmed Control		https://youtu.be/lwmd24VVczQ			
UNIT-IV Input/output Organization									
1	III-I	Mrs.M.Karuna	L1	Accessing I/O Devices	6	https://youtu.be/7IONxlpV0Ow			
2		Mrs. A. Usha Rani	L2	Interrupts, interrupt Hardware, Enabling and Disabling Interrupts, Handling		https://youtu.be/zCexNn9BpkM			
3		Mrs.M.Karuna	L3	Direct Memory Access		https://youtu.be/1BDZCMWUDGQ			
4		Mrs. A. Usha Rani	L4	buses. Synchronous bus, Asynchronous bus		https://youtu.be/JXNDIXyg88pE			
5		Mrs.M.Karuna	L5	Interface Circuits		https://youtu.be/XiPXbBHOG4I			
6		Mrs. A. Usha Rani	L6	Universal Serial Bus (USB).		https://youtu.be/GsGAIUyLqEQ			
UNIT-V:The Memory Systems									
1	III-I	Mrs. A. Usha Rani	L1	Basic memory circuits - 1	6	https://youtu.be/mJzjzngfWzD			
2			L2	Basic memory circuits - 2		https://youtu.be/0ysAt0j_Rlg			
3			L3	Memory System Consideration		https://youtu.be/-GgsVbDl3-E			
4		Mrs.M.Karuna	L4	Cache Memories: Mapping Functions		https://youtu.be/hBD4wpQvsVs			
5			L5	Interleaving		https://youtu.be/K1mvngQf1-zdo			
6			L6	Optical Disks		https://youtu.be/X6x3F514GuY			
Name of the subject:Digital Integrated Circuits and Applications									
UNIT-I:Digital Logic Families and Interfacing									
1	III-I	Mr.P.Tirumala Rao	L1	Introduction to course	13	https://youtu.be/K3DsrWk0OEQ			
2			L2	Introduction to Digital logic families and their applications		https://youtu.be/YTxDeIlrrMk			
3			L3	CMOS logic		https://youtu.be/NV170pClb9U			
4			L4	CMOS logic Families		https://youtu.be/2IXyghNP-Fw			
5			L5	CMOS Steady state electrical behaviour		https://youtu.be/l9cJvcceIB4			
6			L6	CMOS Steady state electrical behaviour		https://youtu.be/zPKDIIshZdNU			
7			L7	CMOS Steady state electrical behaviour		https://youtu.be/6DzmmTgtapc			
8			L8	CMOS Dynamic electrical behaviour		https://youtu.be/w8sfjmE2gm0			
9			L9	Diode Resistor Logic		https://youtu.be/B8Kwltx2VUY			
10			L10	TTL Nand gate		https://youtu.be/sQ_hFKGP9ts			
11			L11	TTL Nor gate		https://youtu.be/atJ5PYalmaY			
12			L12	Emitter coupled logic		https://youtu.be/A7uqUpNs_jY			
13		Mrs.K.Swathi	L13	TTL families and CMOS/TTL interfacing		https://youtu.be/pourojN0Lzk			
UNIT-II: Digital Design Using HDL									
1			L1	Design flow ,History of VHDL and its evolution		https://youtu.be/_ruK146Mg			
2			L2	VHDL Program structure		https://youtu.be/9hb7XVuU8sA			

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
3	III-I	Mr.P.Tirumala Rao	L3	Levels of Abstraction	13	https://youtu.be/89c9MYynsNk
4			L4	Elements of VHDL		https://youtu.be/addUx3o63uU
5			L5	VHDL objects and Classes		https://youtu.be/xQQpkGBbwVI
6			L6	VHDL Data types		https://youtu.be/BO6brGT0egs
7			L7	Composite data types		https://youtu.be/01cEuHL5IGs
8			L8	Sequential statements		https://youtu.be/T4r-opNoOXM
9			L9	Concurrent Statements		https://youtu.be/8WQ3Z0T2AV
10			L10	Cocurrent structural elements		https://youtu.be/Ohuaa0JZnrM
11			L11	Concurrent generate statement		https://youtu.be/0Oy0VeNmSrw
12			L12	Packages and Subprograms		https://youtu.be/kbdn_bg7-2A
13			L13	Libraries, Binding and VHDL vs Verilog		https://youtu.be/bFGsFw96Qnc

UNIT-III: VHDL Modelling

1	III-I	Mr.P.Tirumala Rao	L1	VHDL Simulation	9	https://youtu.be/Kr09pGG0c9U
2			L2	Logic Synthesis		https://youtu.be/sqKAc00f9H4
3			L3	Inside a logic synthesizer, Functional		https://youtu.be/zRra3OIMRJE
4			L4	Place and route, Post layout simulation,		https://youtu.be/Oap7yH8MyMk
5	III-I	Mrs.K.Swathi	L5	ROM - 1		https://youtu.be/fgJ1ijlhrL4
6			L6	ROM - 2		https://youtu.be/0q-RdJgYGOY
7			L7	ROM - 3		https://youtu.be/AtJ7WFhALzs
8			L8	RAM		https://youtu.be/xXnB0LTss9E
9			L9	DRAM		https://youtu.be/dcybynIJg8M

UNIT-IV: Combinational Logic Design

1	III-I	Mrs.K.Swathi	L1	Combinational Circuits, Adders	14	https://youtu.be/829bmallICps
2			L2	Ripple Adder		https://youtu.be/MUVU_o33Vt0
3			L3	Carry Look Ahead Adder		https://youtu.be/Lqb2rhbELFU
4			L4	ALU, Parity Circuits, Multipliers		https://youtu.be/XsHILmS35N2E
5			L5	Decoders		https://youtu.be/wUpObNmFEIk
6			L6	Encoder		https://youtu.be/8Mcso_jZuRI
7			L7	Priority Encoder coding		https://youtu.be/VrbWKPiPks
8			L8	Parity Generator Coding and Comparator		https://youtu.be/tTCVAAAATAA
9			L9	MUX Coding		https://youtu.be/mfoYn3x_jDw
10			L10	Tristate devices		https://youtu.be/fkDFvDcEB7s
11			L11	Comparators, Cascading Comparators		https://youtu.be/ku35dcKbbQI
12			L12	Barrel Shifter		https://youtu.be/dTLIHkeWYAE
13			L13	Dual Priority Encoder		https://youtu.be/oLNJjc6v44U
14			L14	Dual Priority Encoder & Floating Point Encoder		https://youtu.be/EfbfewqsV6g

UNIT-V: Sequential Logic Design

1	III-I	Mr.D.Madhusudhan	L1	Synchronous Sequential Circuits	5	https://youtu.be/xflmv8iVcQA
2			L2	Counters		https://youtu.be/r9BTPd7DCrQ
3			L3	Shift registers		https://youtu.be/mmXgpwDzs94
4			L4	universal shift register		https://youtu.be/B0vv3GDtFLw
5			L5	Ring counter and Jhonson counter		https://youtu.be/J6XF9h2FXJw

Name of the Subject: Antennas and Wave Propogation

UNIT-I : Antennas Fundamentals & Linear Wire Antennas						
1	III-I	Dr. K. Srinivas Naik	L1	Introduction to Antennas, Basic Antenna Radiation Patterns for two wire and Dipole Antennas	15	https://youtu.be/KZRsl4E5Ygtk
2			L2	Types of Antennas		https://youtu.be/7y4XAovMlw
3			L3	Antenna Parameters (Radiation Patterns, Gain, Beamwidth)		https://youtu.be/07mdJuc17T0
4			L4	Antenna Parameters (Beam Solid Angle, Efficiency, Directivity, Power, Gain)		https://youtu.be/u9nPSt7DxOso
5			L5	Antenna Parameters (Input Impedance, Radiation Resistance, Polarization)		https://youtu.be/bZHV0zrZbxQ
6			L6	Antenna Parameters (Efficiency, Directivity, Gain, Power, Gain)		https://youtu.be/6zNwN6yMrqA
7			L7	Antenna Parameters (Efficiency, Directivity, Gain, Power, Gain)		https://youtu.be/RjYA28jGm5c
8			L8	Antenna Parameters (Efficiency, Directivity, Gain, Power, Gain)		https://youtu.be/jVfFcZgmwfsg
9		Mr. J. Ramesh	L9	Radiation from Small Electric Dipole		https://youtu.be/ML6Jl6vvpeo
10			L10	Radiation from Small Electric Dipole		https://youtu.be/fVP6jKm6d8U
11			L11	Radiation from Small Electric Dipole		https://youtu.be/MwTGogk1Nho
12			L12	Radiation from Small Electric Dipole		https://youtu.be/-D9i7Z90Nkk

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content			
13			13	Filar wave Dipole: Evaluation of field	3	https://youtu.be/67TScjEz0lk			
14			14	Filar wave Dipole: Evaluation of field		https://youtu.be/LYFYdd8FlqA			
15			15	Filar wave Dipole: Evaluation of field Unit-II: Antenna Arrays		https://youtu.be/88-fTOx5Hs			
1	III-I	Dr. K. Srinivas Naik	L1	Introduction to Antenna Arrays	11	https://youtu.be/g1D1PdolpA0			
2			L2	Types of Antenna Arrays		https://youtu.be/Uhu2j3sdPVw			
3			L3	Two Element Isotropic Antenna Arrays		https://youtu.be/5zoPjDc2lZM			
4			L4	N - Element Uniform Antenna Array,		https://youtu.be/VCg2Chs1fw			
5			L5	N - Element Uniform End Fire Antenna		https://youtu.be/raVK_iEHJHM			
6		Mr. J. Ramesh	L6	Problems on Broad Side and End Fire		https://youtu.be/6EtuV5g0Ueg			
7			L7	Problems on Two Element Array and Pattern Multiplication Method (8-point)		https://youtu.be/u-u8qXggLog			
8			L8	Taguchi Array, Plateau Dipole,		https://youtu.be/vgu1mIZ_AU			
9		Dr. K. Srinivas Naik	L9	Problems on Taguchi Array and Fourier Transform		https://youtu.be/z8Wl9WaDl0o			
10			L10	Dolph-Tchebyscheff Method		https://youtu.be/fyki-9EwKiA			
11			L11	Dolph-Tchebyscheff Method		https://youtu.be/DlwKikSskE			
1	III-II	Dr. K. Srinivas Naik	L1	Resonant, Non-Resonant, Long Wire and Tensioned Wire Antennas	7	https://youtu.be/rTzCXffa2sc			
2			L2	V and Inverted V Antennas		https://youtu.be/FpqvCsZJjDI			
3			L3	Rhombic Antennas		https://youtu.be/AD40KC8o4Ro			
4			L4	Problems on Rhombic Antennas		https://youtu.be/A15B1xigJoY			
5			L5	Helical Antenna and its types		https://youtu.be/fbyl_hgQqFI			
6			L6	Problems on Helical Antenna		https://youtu.be/zBZg9dCZKak			
7			L7	Loop Antenna and Field Component		https://youtu.be/qkwQWwZis			
1	III-I	Dr. K. Srinivas Naik	L1	Reflector Antennas	6	https://youtu.be/NRB98J2yCvM			
2			L2	Parabolic Reflector Antenna		https://youtu.be/Efqc8v8knY			
3			L3	Horn Antenna		https://youtu.be/AF7CPiqXuGY			
4			L4	Lens Antenna		https://youtu.be/FmoS7LwtXVQ			
5			L5	Microstrip Patch Antenna		https://youtu.be/t54ICnynU9Y			
6			L6	Antenna Measurements - Directivity, Gain		https://youtu.be/qtD2PrRrJeg			
Unit-V : Wave Propagation									
1	III-I	Dr. K. Srinivas Naik	L1	Types of Propagation and Ground Wave Propagation	7	https://youtu.be/9S6Q38e6ZQs			
2			L2	Ionosphere Propagation - 1		https://youtu.be/7LiCDlxciH0			
3			L3	Ionosphere Propagation - 2		https://youtu.be/GjflHYkG8JnQ			
4		Mr. J. Ramesh	L4	Derivation for Maximum Usable Frequency		https://youtu.be/KaCyY1sNaQ			
5			L5	Optimum Working Frequency, Skip Distance, Duct Depth, Height and Duct Length		https://youtu.be/4rpN6VD0yzE			
6			L6	Space Wave Propagation		https://youtu.be/a5BKro8eo7w			
7			L7	Duct Propagation		https://youtu.be/98VcdAOcx7c			
Name of the Subject: Cellular and Mobile Communications									
UNIT-I: Introduction to Cellular Mobile Systems									
1	IV-I	Dr.K.Murali Krishna	L1	Introduction	9	https://youtu.be/NEZWxk-gK6Q			
2			L2	Introduction to Cellular Mobile Systems		https://youtu.be/Yf2x6WuffLA			
3			L3	Performance Criterion - 1		https://youtu.be/o7yN7juawu8			
4		Mrs.Y. Sukanya	L4	Uniqueness of Mobile Radio		https://youtu.be/7uMWvusdmz0			
5			L5	Performance Criterion - 2		https://youtu.be/-7pFS4tTIPY			
6		Dr.K.Murali Krishna	L6	Operation of Cellular Systems		https://youtu.be/YTjU3caIQ58			
7			L7	Planning of a Cellular System		https://youtu.be/OjHzB0GPkng			
8			L8	Analog and Digital Cellular Systems		https://youtu.be/1ojACWRFkg8			
9		Mrs.Y. Sukanya	L9	Amplifier Noise		https://youtu.be/jeoRrPPd8J0			
UNIT-II: Elements of Cellular Radio System Design									
1	IV-I	Dr.K.Murali Krishna	L1	General Description of the problem	8	https://youtu.be/KOob5X0zXU0			
2			L2	Concept of frequency reuse channels		https://youtu.be/5rzJE1mrOJ8			
3			L3	Cochannel Interference Reduction Factor		https://youtu.be/vOLrDODfxcY			
4			L4	Cochannel Interference Reduction Factor		https://youtu.be/UTtVQJ1D1V2			
5			L5	Desired C/I from a Normal Case in an OFDMA		https://youtu.be/HqJyRPwfD_w			
6			L6	Cell Splitting		https://youtu.be/j1rQw549fII			

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
7		Mrs. Y. Sukanya	L7	Considerations of the Components of Cell Site	2	https://youtu.be/ZZxWYlWonfY
8			L8	Numericals		https://youtu.be/OL2vLWg_qTI

UNIT-III:Interference

1	IV-I	Dr.K.Murali Krishna	L1	Cochannel Interference	6	https://youtu.be/HVimAyLGbLk
2		Mrs. Y. Sukanya	L2	Uniqueness of Mobile Radio		https://youtu.be/MAd2Jlogkz8
3			L3	Design of a Unidirectional AS in		https://youtu.be/WagKyJPhIx0
4		Dr.K.Murali Krishna	L4	Design of a Directional Antenna System -		https://youtu.be/uv42TWO3abQ
5			L5	Design of a Directional Antenna System -		https://youtu.be/sxCWVi0v4LI
6						https://youtu.be/wtKqRkLcDmU

UNIT-IV:Frequency Management and Channel Assignment and Frequency Management and Channel Assignment

1	IV-I	Dr.K.Murali Krishna	L1	Frequency Management	6	https://youtu.be/A4InrbR7ddQ
2		Mrs. Y. Sukanya	L2	Fixed Channels Assignment, Non - Fixed		https://youtu.be/zAloZBgUTTE
3			L3	Fluctuation in Ground Incident Angle and		https://youtu.be/7btPl-VZLbE
4			L4	Phase Difference between a Direct Path		https://youtu.be/5T8-a6mPy0I
5			L5	Propagation over water or flat area - 1		https://youtu.be/w9FFmpD5i5M
6				Propagation over water or flat area - 2		https://youtu.be/cSXUHxip8Cc

Unit-V: Hand Offs and Dropped Calls and Cell Site Antennas and Mobile Antennas

1	IV-I	Mrs. Y. Sukanya	L1	Introduction, Delaying Handoff, Forced	8	https://youtu.be/utiCJYbPUCY
2			L2	Power difference thresholds, Mobile		https://youtu.be/AiAL-064f9s
3			L3	Initiation of Hand-off - 1		https://youtu.be/YfdnnuzA3os
4			L4	Initiation of Hand-off - 2		https://youtu.be/5LwQ94rMr-Y
5			L5	Handoff Mechanism		https://youtu.be/p7RsIrBULtk
6		Dr.K.Murali Krishna	L6	Dropped Call Rate and its evaluation		https://youtu.be/sObFVLhyI8
7			L5	Mobile Antennas		https://youtu.be/ZV4q_YEOJjs
8			L6	Cell Site Antennas		https://youtu.be/rTE1nz_pzDU

Name of the Subject :Digital Image Processing

UNIT-I:INTRODUCTION:

1	IV-I	Dr. P.S.N. Murthy	L1	Introduction of Image processing	6	https://youtu.be/YhJaNUrNer4
2			L2	History Applications of Image		https://youtu.be/7IMuOsBDKpE
3			L3	Sampling and quantization		https://youtu.be/Db-czFsbyKc
4			L4	Fundamentals of Digital Image		https://youtu.be/sP66sTILUbc
5			L5	Neighbourhood of pixels - 1		https://youtu.be/gcyAcaIzA9M
6			L6	Neighbourhood of pixels - 2		https://youtu.be/p7mFOpkGP6o

UNIT-II:IMAGE TRANSFORMS

1	IV-I	Dr. P.S.N. Murthy	L1	Image transforms	4	https://youtu.be/BEuKLx_3hVo
2			L2	Fourier transforms		https://youtu.be/OLNprRksLuk
3			L3	Non-sinusoidal orthogonal basic function		https://youtu.be/7Ou4nTLCY8s
4			L4	Statistics of input signal		https://youtu.be/z8Gh6VTDPao

UNIT-III:Image Enhancement

1	IV-I	Mrs. A. Usha Rani	L1	Image Enhancement	3	https://youtu.be/4sz27YPzeBk
2			L2	Image Enhancement in Spatial domain		https://youtu.be/2MDe5WJr3c
3			L3	Image sharpening using high pass filter		https://youtu.be/1MvVw1mOoV

UNIT-IV:Image Compression and Image Compression

1	IV-I	Mrs. A. Usha Rani	L1	Huffman Coding, Arithmetic Coding	5	https://youtu.be/oaCCTkCx0H0
2			L2	Run length Coding, Block Transform Coding		https://youtu.be/cr-CqVLRTII
3			L3	Arithmetic Coding		https://youtu.be/EKsyFSnpz3g
4			L4	LZW Coding		https://youtu.be/Qk9TrGL7eus
5			L5	Image Segmentation		https://youtu.be/8ox1VGNQXY0
6		Dr. P.S.N. Murthy	L6			

UNIT-V:Color Image Processing

1	IV-I	Dr. P.S.N. Murthy	L1	Pseudocolor image processing	3	https://youtu.be/odCJ34obBQs
2			L2	Basic of full colorimage processing		https://youtu.be/OesBwYSSGN4
3			L3	Full Color Image Processing		https://youtu.be/vy8hQ3wHJ0k

Name of the Subject:Microwave Engineering

UNIT-I:MICROWAVE TRANSMISSION LINES

1			L1	Introduction of MWE		https://youtu.be/Po8X4Zignao
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S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
2	IV-I	Dr.Sourav Roy	L2	Microwave, Electromagnetic Spectrum, Waveguide introduction, types of	9	https://youtu.be/A12McFigh9w
3			L3	TM mode field expression rectangular		https://youtu.be/TKAuATVfOCo
4			L4	TE mode field expression rectangular		https://youtu.be/hyD4ehYZGok
5			L5	Sketches of TE and TM mode fields in		https://youtu.be/y6uOatNDdK0
6			L6	Mode characteristics - Phase and Group		https://youtu.be/EL9-5G3AR0I
7			L7	Wave impedance, power transmission		https://youtu.be/1oFWdNtDEc4
8			L8	and Power Losses in Rectangular Guide		https://youtu.be/4DSeSSBhxXs
9			L9	GATE Numerical		https://youtu.be/NhpzofwwgZY

UNIT-II:CIRCULAR WAVEGUIDES

1	IV-I	Dr.Sourav Roy	L1	Introduction, Wave Equation of circular	5	https://youtu.be/vK3UhDZml1c
2			L2	TE mode FIELD Expression,		https://youtu.be/XzGAh91r8Gw
3			L3	TM mode FIELD Expression;		https://youtu.be/LN6uHuRp2yQ
4			L4	Cavity resonators - introduction, types,		https://youtu.be/Yc0RJ1uXG8iU
5			L5	Q factor and coupling Coefficients,		https://youtu.be/FagRTQ2JHYw

UNIT-III:MICROWAVE TUBES

1	IV-I	Dr.Sourav Roy	L1	Microwave tubes, Cavity Klystrons -		https://youtu.be/TORX-jlMY4A
2			L2	Applegate Diagram, bunching Process		https://youtu.be/3RzT-CNmzy8
3			L3	Reflex Klystrons - Structure, Applegate		https://youtu.be/zEFsx-W9ag4
4			L4	Mathematical Principle of bunching,		https://youtu.be/piaSzcpJsmc

UNIT-IV:WAVEGUIDE COMPONENTS AND APPLICATIONS

1	IV-I	Dr. A. Naga Jyothi	L1	Coupling Mechanisms – Probe, Loop	6	https://youtu.be/9TtZWKz6k3k
2			L2	Aperture types.		https://youtu.be/v1jOAkGQM2g
3			L3	Magic Tee		https://youtu.be/3XsnBj2_S50
4			L4	Microwave networks		https://youtu.be/aJJi0CsQ9HM
5			L5	S-Matrix Calculations		https://youtu.be/2G9Xp8XU1jI
6			L6	S-Matrix Calculations		https://youtu.be/vTIKOt4r6PU

UNIT-V:MICROWAVE SOLID STATE DEVICES

1	IV-I	Dr.Sourav Roy	L1	Introduction, Classification, Gunn Diode	4	https://youtu.be/vV8SpDhTqfl
2			L2	Characteristics, Basic modes of		https://youtu.be/KU4tCdxCeuc
3			L3	Varactor Transistor Devices		https://youtu.be/VMaNsXZ1PHs
4			L4	HBT HBT DIODES, Principle of operation and Characteristics		https://youtu.be/VhjBCSutWbo

Name of the Subject:Optical Communications

UNIT-I: Overview of optical fiber communication

1	IV-I	Dr. Rohan Prasad	L1	Introduction Of optical communication	6	https://youtu.be/vNK8QieYS6A
2			L2	Introduction to optical fiber		https://youtu.be/-SuDrBVUOu0
3			L3	Optical Law		https://youtu.be/OHDo7jlVJmM
4			L4	Ray model of Optical fiber		https://youtu.be/IT6Z-hvAbho
5			L5	Wave model of optical fiber		https://youtu.be/yGrAWsgN_oU
6			L6	Types of optical fiber		https://youtu.be/JcxFOktP3KE

UNIT-II:Fiber materials

1	IV-I	Mrs.Ch. Shravani	L1	Fiber material	8	https://youtu.be/1Z-NwCBL_7D
2			L2	Attenuation		https://youtu.be/E1JsYZbxkos
3			L3	Absorption		https://youtu.be/xXzyba-gcIIA
4			L4	Scattering losses		https://youtu.be/rjzK9nuSsRE
5			L5	Dispersion		https://youtu.be/4XsWIWrFExA
6			L6	Types of dispersion		https://youtu.be/sQ3773ZjlMc
7			L7	Intra modal dispersion		https://youtu.be/H-nub5QtzPY
8			8	Polarization mode dispersion		https://youtu.be/z-AuORKE00D

UNIT-III:Optical fiber Connectors and Source to fiber power launching

1	IV-I	Dr. Rohan Prasad	L1	Optical Connectors	6	https://youtu.be/c7XDpF8oJrA
2			L2	Connector Losses		https://youtu.be/E1CskPl-IXc
3			L3	Fiber Splicing		https://youtu.be/-kknA9Hlc78
4			L4	Fiber to fiber joints		https://youtu.be/reQjvFAxXgI
5			L5	Source to fiber Power launching		https://youtu.be/6oC19jc0sk0
6			L6	LED to fiber power coupling - 1		https://youtu.be/FuQldoKTK5o

UNIT-IV:Optical sources

1			L1	Optical Sources		https://youtu.be/Hf92piQpkvk
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S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
2	IV-I	Mrs.Ch. Shravani	L2	LED to fiber power coupling - 2	3	https://youtu.be/lbKhM0iVwss
3			L3	Lasers		https://youtu.be/Jdm85hc2KWQ
UNIT-V: Optical Receiver and Optical system design						
1	IV-I	Dr. Rohan Prasad	L1	Optical Receiver	4	https://youtu.be/l4rbg7pgmZ8
2			L2	Error sources at receiver		https://youtu.be/i0c9Ecj1vww
3			L3	Eye diagram		https://youtu.be/GoaPSx0FAOs
4			L4	Optical system design		https://youtu.be/0KHLnCtIYLA

Name of the Subject: Embedded System Design

UNIT-I: INTRODUCTION:

1	IV-I	Mr. B. Eswara Rao	L1	Introduction to Embedded System Design	13	https://youtu.be/Xz42eNbSzQs
2			L2	Application Areas of Embedded System		https://youtu.be/cb6EcVVcaPM
3			L3	Classification of Embedded System		https://youtu.be/zVndiNCMDcU
4			L4	Typical Embedded System		https://youtu.be/wowIDM4DzT
5			L5	Core of the Embedded Systems		https://youtu.be/b1DHIndZhxUE
6			L6	Microprocessors Vs. Microcontrollers		https://youtu.be/F2JZztwHJ7M
7			L7	Applications Specific Integrated Circuits ASIC		https://youtu.be/7ZdoU4fU2rl
8			L7	Programmable Logic Devices - PLD's		https://youtu.be/cpOd7D-E-fI
9			L7	Commercial Off-The-Shelf Components (COTS)		https://youtu.be/E_pi74t1YZA
10		Mr. P. Tirumala Rao	L8	Memories		https://youtu.be/0q0E4V73ynw
11		Mr. P. Tirumala Rao	L8	Sensors and actuators with I/O		https://youtu.be/ZFzYZJZUWY
12		Mr. B. Eswara Rao	L9	Description about the I/O Subsystems		https://youtu.be/C-HDoln4bxg
13		Mr. B. Eswara Rao	L9	I/O Subsystems of Piezo Driver, Push button, Capacitive, DHT, DHT11, DHT22		https://youtu.be/lLE8mP-pJfI

UNIT-II

1	IV-I	Mr. P. Tirumala Rao	L1	Characteristics of Embedded system	11	https://youtu.be/9pTi8CBuQs
2			L2	Quality Attributes of Embedded system		https://youtu.be/bvITUoqCy_A
3			L3	Non Operational Quality Attributes of Embedded system		https://youtu.be/ChAtmL1DfQ
4			L3	Non operational Quality Attributes of Embedded system		https://youtu.be/JLgeliJtuTc
5			L4	Analog Electronic components		https://youtu.be/friSHIfuwRg
6			L5	Digital Electronic components		https://youtu.be/eN3hcHC3KLk
7			L6	Sequential Digital Electronic components		https://youtu.be/HzjuVLnYYHk
8			L7	Application and Domain specific Components		https://youtu.be/zd0zTj2UpLU
9			L8	On Board Communication interface		https://youtu.be/3k3pcWHLos
10			L9	External Communication interface		https://youtu.be/HEJnooSS_1M
11			L10	Other system components		https://youtu.be/v_GKA2iFMiQ

UNIT-III: EMBEDDED SOFTWARE DESIGN

1	IV-I	Mr. B. Eswara Rao	L1	Concept of C Programming vs. Embedded "C" Programming	2	https://youtu.be/ICYSRMgOlkA
2			L2	Compiler Vs. Cross Compiler		https://youtu.be/71E7rmQBgk4

UNIT-IV: REAL - TIME OPERATING SYSTEMS

1	IV-I	Mr. B. Eswara Rao	L1	Real Time Operating Systems - Introduction	13	https://youtu.be/GCU8IJ5j924
2			L2	Operating Systems Basics		https://youtu.be/9vvdw7hP4-o
3			L3	Types of Operating Systems		https://youtu.be/R1htra5fQaQ
4			L4	Process, State and Transition		https://youtu.be/peG0TaX3vc4
5			L5	Thread Standards		https://youtu.be/9IMj2V0901
6			L6	Multiprocessing and Multitasking		https://youtu.be/fv8MLSYPpWs
7			L7	Types of Multitasking		https://youtu.be/qoqRZK98OGo
8			L8	Description about the RTOS - Task First-In-First-Out Scheduling		https://youtu.be/zNPY6r_3X4I
9			L8	First-In-First-Out Scheduling		https://youtu.be/0QYL3hZvIlc
10			L8	Shortest-Job-First Scheduling		https://youtu.be/pCYbIXnVao
11			L9	Priority based Scheduling Algorithm		https://youtu.be/L8KZLbE6ddo
12			L9	Precipitive Scheduling Algorithm		https://youtu.be/AYpv9S741Q
13			L9	Algorithms		https://youtu.be/Yrrt36obA3I

Name of the Subject: Operating Systems

Unit-I: Introduction to Operating System Concept

1	IV-I	Mrs.Ch. V. Bhargavi	L1	Introduction	5	https://youtu.be/gvaABgBTmg0
2			L2	Types of Operating Systems		https://youtu.be/P9hw3CuDpg
3			L3	Operating Functionalities - 1		https://youtu.be/inLq4mNBTn8
4			L4	Operating Functionalities - 2		https://youtu.be/rCoURqqgFV0

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
5			L5	Operating System Services		https://youtu.be/dbX3VHrtoY8
UNIT-II:Process Management						
1	IV-I	Mrs.Ch.V.Bhargavi	L1	Process and Basic Concepts of Process	6	https://youtu.be/v-5IecKYlS0
2			L2	Process States and Queuing Diagram		https://youtu.be/04Vyh2G8gIA
3			L3	Scheduling Criteria & CPU burst		https://youtu.be/Pt2AWJt59Y4
4			L4	Inter Process Communication		https://youtu.be/BjFKkngcHak
5			L5	Message Passing		https://youtu.be/orL0C4ATL0U
6			L6	Operations on Process		https://youtu.be/O4xT1ve81Qk
UNIT-III:Memory Management						
1	IV-I	Mrs.Ch.V.Bhargavi	L1	Memory Management	9	https://youtu.be/Vsxc04dEfIs
2			L2	Swapping		https://youtu.be/Lh4LRXpCL5w
3			L3	Contiguous Memory Allocation		https://youtu.be/EAfn-MkSBGQ
4			L4	Paging		https://youtu.be/oaPmmcgYypM
5			L5	Table & Segmentation		https://youtu.be/v_Ur4UQBfIM
6			L6	Structure of Page Table & Segmentation		https://youtu.be/xSd8ojWYR98
7			L7	Virtual Memory and Demand Paging		https://youtu.be/k0nCEUyQmco
8			L8	Page Replacement Algorithms		https://youtu.be/wLooXOQc0Z4
9			L9	Page Replacement Algorithms, Thrashing		https://youtu.be/Zujk8JG7L9k
UNIT-IV:Concurrency						
1	IV-I	Mrs.Ch.V.Bhargavi	L1	Introduction Process Synchronization and Critical Section	7	https://youtu.be/CpLqdX8MnZI
2			L2	Semaphore Implementation		https://youtu.be/5A7yxTnyLUs
3			L3	Classical Synch Problem		https://youtu.be/JT8T_cz4P4U
4			L4	Deadlock		https://youtu.be/cwndoEuWy24
5			L5	Deadlock Detection Bankers Algorithms		https://youtu.be/Dy8LszlskXw
6			L6	Deadlock Handling Methods		https://youtu.be/D2_VN6Ju5HM
7			L7	Peterson Solution		https://youtu.be/CYS0jS6LUM
UNITV:File system Interface						
1	IV-I	Dr. A. Naga Jyothi	L1	File Access Methods	4	https://youtu.be/uOunVBsYRAo
2			L2	Directory Structure		https://youtu.be/d6ET5AndxmU
3			L3	File System Mounting		https://youtu.be/l9ngBTUXzHQ
4			L4	File Allocation Methods		




PRINCIPAL
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Information Technology (A)
 Beside: VSEZ, Duwada, Visakhapatnam-49



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Digital Content Developed by Faculty during Academic Year 2020-2021

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
Name of the Subject: Discrete Mathematical Structures						
UNIT I: SETS & COMBINATORICS						
1	II-I	Mrs. A Reethika Reddy	L1	Theorems	5	https://youtube.com/playlist?list=PLzaB5mSrs9mALwNKKmeOeJYY1yuL800l9
2			L2	Sets Introduction		
3			L3	Laws Of Sets		
4			L4	Venn Diagrams		
5			L5	Combinations Permutations		
UNIT II: MATHEMATICAL LOGIC						
1	II-I	Mr. CH.Viswanatha Sarma	L1	Mathematical Logic Introduction	9	https://youtube.com/playlist?list=PLzaB5mSrs9mDjuzPjW5BxtAC07OjGZ5cq
2			L2	truth tables 1		
3			L3	construction of truth tables		
4			L4	Logical equivalences		
5			L5	logical equivalences 2		
6			L6	Introduction to Normal Forms		
7			L7	Normal Forms 2		
8			L8	Normal Forms 2		
9			L9	Inference laws in PL		
UNIT III: RELATIONS, FUNCTIONS AND ALGEBRAIC STRUCTURES						
1	II-I	Mrs. A Reethika Reddy	L1	Relations Introduction	6	https://youtube.com/playlist?list=PLzaB5mSrs9mAUYOpB6uXlhbpEL2x3I-u
2			L2	Matrices and Diagraphs		
3			L3	Functions ,Types Of Functions		
4			L4	Closures and Hasse Diagram		
5			L5	Glassboard1		
6			L6	Glassboard2		
UNIT-IV:GENERATING FUNCTIONS & RECURRENCE RELATIONS:						
1	II-I	Mrs. A Reethika Reddy	L1	partial fractions	5	https://www.youtube.com/playlist?list=PLzaB5mSrs9mAkQek89o6XetZG3z1uc67m
2			L2	Calculating Coefficient of Generating Functions		
3			L3	Recurrence dms		
4			L4	Recurrence intro		
5			L5	glas unit4		
UNIT-V: GRAPH THEORY						
1	II-I	Mr. CH.Viswanatha Sarma	L1	Introduction to Graphs	6	https://youtube.com/playlist?list=PLzaB5mSrs9mDGpU4R9
2			L2	Types of Graphs		
3			L3	ISOMORPHIC GRAPHS AND SPANNING TREES		
4			L4	PATH AND CIRCUITS		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
5			L5	EULER AND HAMILTONIAN GRAPHS		KVq5UGqVHaqA3Bx
6			L6	INTRODUCTION TO GRAPHS		

Name of the Subject: Digital Logic Design

UNIT 1: Digital Systems and Binary Numbers

1	II-I Dr.G.Neelima	L1	Complements	3	https://www.youtube.com/watch?v=HdYNrvIBEe8
2		L2	Number systems binary and decimal		
3		L3	Octal and Hexadecimal Number Systems		

UNIT 2: Concept of Boolean algebra

1	II-I P Kalyan Chakravarthy	L1	Topics for next sessions are discussed in DLD	7	&index=3
2		L2	Introduction to K-Maps		
3		L3	Representation of truth table in k map		
4		L4	Problems on k map		
5		L5	Five variable k map		
6		L6	Quine Mc Cluskey Tabulation method		
7		L7	universal gates NAND & NOR		

UNIT 3: Combinational Logic

1	II-I P Kalyan Chakravarthy	L1	combinational circuit halfadder,full adder	3	https://youtu.be/8PM1e8ThLc
2		L2	universal gates NAND & NOR		
3		L3	Encoder&Decoder Mux&Demux		

UNIT 4: Synchronous Sequential Logic

1	II-I Dr.G.Neelima	L1	Introduction to Sequential Circuits	4	https://youtu.be/oy1zjCZ7Kjk
2		L2	Flip-Flops		
3		L3	D Flip-Flops		
4		L4	T Flip Flop		

UNIT 5: Registers and Counters

1	II-I CH.Sravani	L1	Melay and Moore Models	4	https://youtu.be/mqWGXcmv0o
2		L2	State diagram and tables		
3		L3	state table reduction using partition techniques		
4		L4	Melay and Moore conversions		

Name of the Subject: Data structures

UNIT1: ARRAYS AND LINKED LISTS

1	II-I Dr.B.Prasad	L1	Introduction	10	https://www.youtube.com/play?list=listPLEoqrc63KY1MNoCVv-Rhw8lyuOsPXrUHi
2		L2	Dynamic Memory Allocation of Array		
3		L3	Structures and Unions		
4		L4	Linked List		
5		L5	Representation of Linked List		
6		L6	Double Linked List		
7		L7	Circular Linked List		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
8			L8	Overall Linked List Concept		
9			L9	Polynomial		
10			L10	Sparse Matrix		

UNIT II: Stacks and Queues

1	II-I	Dr.B.Prasad	L1	Stacks	11	https://www.youtube.com/playlist?list=PLEoqrc63KY1MNoCVv-Rhw8lyuOsPXrUHi
2			L2	Queues		
3			L3	Implementation of Queues		
4			L4	Priority Queue		
5			L5	Circular Queue		
6			L6	Evaluation of Expressions		
7			L7	Infix to Postfix		
8			L8	Infix to Prefix		
9			L9	Prefix to infix		
10			L10	Postfix to Infix		
11			L11	Tower of Hanoi		

UNIT III: Searching and Sorting

1	II-I	B.Keerthana	L1	Searching & Linear Search	8	https://www.youtube.com/playlist?list=PLEoqrc63KY1MNoCVv-Rhw8lyuOsPXrUHi
2			L2	Binary Search		
3			L3	Fibonacci Search		
4			L4	Selection Sort		
5			L5	Insertion Sort		
6			L6	Quick Sort		
7			L7	Merge Sort		
8			L8	Heap Sort		

UNIT IV: TREES

1	II-I	Dr.B.Prasad	L1	Trees	10	https://www.youtube.com/playlist?list=PLEoqrc63KY1MNoCVv-Rhw8lyuOsPXrUHi
2			L2	Properties of Trees		
3			L3	Binary Search Trees		
4			L4	Binary Tree		
5			L5	Representation of Trees		
6			L6	Binary Tree Traversal		
7			L7	In Order Binary Tree Traversal		
8			L8	Post Order Binary Tree Traversal		
9			L9	Binary Tree Construction		
10			L10	Pre Order Binary Tree Traversal		

UNIT V: Advanced Concept of Trees

1		Dr.B.Prasad	L1	Binary Search Trees	3	https://www.youtube.com/playlist?list=PLEoqrc63KY1MNoCVv-Rhw8lyuOsPXrUHi
2			L2	Representation of Trees		
3			L3	Binary Heap		

Name of the Subject: Java

UNIT1: Introduction to OOPs						
1			L1	Introduction and Overview Lecture1		
2			L2	Introduction to OOP		
3			L3	principles of oop		
4			L4	History of Java		
5			L5	History and Features of Java		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
6	II-I	M.Srinivasarao	L6	Introduction to JAVA	18	https://youtube.com/playlist?list=PL9nOC7NQKGInd9ds8nYtsjFfSQ2P483cm
7			L7	Features of Java		
8			L8	JVM Architecture		
9			L9	Structure of Java Programming		
10			L10	Structure of Java Program		
11			L11	Java Installation and Path setting		
12			L12	Variables in Java		
13			L13	Data Types & Identifiers		
14			L14	Operators		
15			L15	Expressions ,Type Conversion and Casting		
16			L16	Type Conversion and Casting		
17			L17	Control Structures		
18			L18	Example Programs		
UNIT 2: Class fundamentals,creating objects						
1	II-I	M.Srinivasarao	L1	Class Fundamentals	9	https://youtu.be/CoOw2wzkCfA
2			L2	CommandLine Arguments		
3			L3	Recursion		
4			L4	Constructor and Constructor overloading		
5			L5	Scanner Class		
6			L6	Static Keyword		
7			L7	this		
8			L8	Method Overloading		
9			L9	Arrays		
UNIT 3: Inheritance,Abstract class,Interfaces,Package & Exception handling						
1	II-I	M.Srinivasarao	L1	Inheritance	8	https://youtube.com/playlist?list=PL9nOC7NQKGInddwwzODdmZGUBkocYTS_o
2			L2	Super Keyword		
3			L3	Final Keyword		
4			L4	Method Overriding		
5			L5	Abstract Class		
6			L6	Interface		
7			L7	Packages		
8			L8	Exception Handling		
UNIT 4: Multithreading & File Handling						
1	II-I	M.Srinivasarao	L1	Introduction, thread life cycle, unnable Interface and Thread Class	4	https://youtu.be/7k8j0jPPm-U
2			L2	thread priorities, thread synchronization		
3			L3	Thread Communication		
4			L4			
UNIT 5: Applet & Event handling						
1	II-I	M.Srinivasarao	L1	Creation of Applet class	6	https://youtu.be/Sd5J5Hmz8U
2			L2	Applet life cycle		
3			L3	reate different shapes in applet		
4			L4	Event handling		
5			L5	event delegation model		
6			L6	Mouse Handling Events, Keyboard Handling events		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
Name of the Subject: MEFA						
UNIT 1: Introduction to Managerial Economics and demand Analysis						
1	II-I	Mrs. Auadhati Datta	L1	Introduction to Economics	8	https://youtu.be/SpqdTwCx4Lg
2				NATURE, SCOPE AND REALTIONSHIP OF MANAGERIAL ECONOMICS		https://youtu.be/KoDJJrafWJg
3			L2	CONCEPT OF DEMAND AND TYPES		https://youtu.be/_uIABS-ihMc
4			L3	LAW OF DEMAND AND EXCEPTIONS		https://youtu.be/rK9PAYQLHMY
5			L4	ELASTICITY OF DEMAND AND TYPES		https://youtu.be/iwbZ1tA90fw
6			L5	MEASUREMENTS OF ELASTICITY OF DEMAND		https://youtu.be/4CLqQvc7ud
7			L6	DEMAND FORECASTING		
8			L7	AND METHODS		
			L8	PRICE INDICES		
UNIT 2: Production and Cost Analyses & Economies of scale-Different cost concepts						
1	II-I	Mrs. Auadhati Datta	L1	COBB DOUGLAS AND LEONTIEF PRODUCTION FUNCTION	8	https://youtu.be/Cb6qA2hcEm4
2			L2	LAW OF VARIABLE PROPORTION		https://youtu.be/KVsGmhsOkXA
3			L3	ISOQUANT AND ISOCOST		https://youtu.be/naQ-5FaVAAU
4			L4	LAW OF RETURNS TO SCALE		https://youtu.be/gtsE82uyZj0
5			L5	ECONOMIES AND DISECONOMIES TO SCALE		https://youtu.be/4zhsOnOx5W0
6			L6	COST CONCEPTS AND TYPES		https://youtu.be/QEG5YT06M7w
7			L7	COST OUTPUT RELATIONSHIP IN SHORT AND LONG RUN		https://youtu.be/ucz3TulSW2M
8			L8	BREAK EVEN ANALYSIS WITH SIMPLE PROBLEMS		https://youtu.be/ttCa9mWJ-xE
UNIT 3: Introduction to Markets, Theories of the Firm & Pricing Policies						
1	II-I	Mrs.K.V.S Praveena	L1	Introduction to Markets	7	https://youtu.be/sqJKXEHIDkE
2			L2	Perfect Competition		https://youtu.be/3LvSBNoUAc
3			L3	Monopoly Competition		https://youtu.be/GdEuNiCWNs
4			L4	Monopolistic Competition		https://youtu.be/yU
5			L5	Oligopoly Competition		https://youtu.be/P8guHKf_uP4
6			L6	Theories of the Firm		
7			L7	PRICING POLICY		
UNIT 4: Types of Business Organization and Business Cycles						
1	II-I	Mrs. Auadhati Datta	L1	Features and Evaluation of Sole Trader	5	https://youtu.be/qj71121cvWk
2			L2	Partnership, Joint Stock Company		https://youtu.be/fMHkOoW9g50
3			L3	State/Public Enterprises and theirforms		https://youtu.be/nGoDGQVb8cc
4			L4	Meaning and Features		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
5			L5	Phases of Business Cycle		CO

UNIT 5: Introduction to Accounting and Capital Budgeting Decisions

1	II-I Dr.P.Sanyasi Naidu		L1	INTRODUCTION OF ACCOUNTING	12	https://youtu.be/qJ7H2R9W_Ck
2			L2	Principle of Accounting, systems of accounting		https://youtu.be/fMHkOoW9g50
3			L3	Account and the concept of accounting cycle		https://youtu.be/nGoDGQVb8co
4			L4	PREPARATION OF JOURNALS		https://youtu.be/aLj4f7hFXp4
5			L5	PREPARATION OF JOURNALS WITH EXAMPLE		https://youtu.be/33uBKyDeJeQ
6			L6	PREPARATION OF JOURNALS AND LEDGERS		https://youtu.be/2FUDwP-daaA
7			L7	PREPARATION OF FINANCIAL STATEMENTS		https://youtu.be/ScLXhiP_OvM
8			L8	PREPARATION OF FINANCIAL STATEMENTS WITH ADJUSTMENTS		https://youtu.be/ulfSCc9QTdU
9			L9	WHAT IS CAPITAL?, INTRODUCTION TO CAPITAL BUDGETING ESTIMATION OF CASH IN FLOWS		https://youtu.be/7-Vtf27KhN4
10			L10	PAY BACK PERIOD, ACCOUNTING RATE OF RETURN		https://youtu.be/4y8bxkbFqwM
11			L11	TIME VALUE OF MONEY		https://youtu.be/DLykRqHjiuk
12			L12	NET PRESENT VALUE, INTERNAL RATE OF RETURN, PROFITABILITY INDEX		https://youtu.be/_UYuRRSWp

Name of the Subject: Mini Project-I (EPICS/Societal Relevant Project)

UNIT 1: ENGINEER'S CONTRIBUTION TO SOCIETY &EPICS

1	II-I	Mr.Ramu Kandregula	L1	EPICS- Roles & Responsibilities of Engineer, Social Problems, Engineering Inventions	1	https://youtu.be/B0c7B1p-Ww8
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UNIT 2: DESIGN THINKING & PROJECT MANAGEMENT:

1	II-I	Mr.Ramu Kandregula	L1	Design Thinking	2	https://youtu.be/_UIpdBknmNE
2			L2	Intrroduction to EPICS and case studies		https://youtu.be/HenxJmoIrPY

UNIT 3: PLATFORMS FOR DEVELOPING COMMUNITY PROJECTS

1	II-I	Mr.Ramu Kandregula	L1	Introduction to Internet of Things	3	https://youtu.be/_yPujsM9RHU
2			L2	3D Printing		https://youtu.be/_yPujsM9RHU
3			L3	Web Development		https://youtu.be/_yPujsM9RHU

Name of the Subject: COMPILER DESIGN

UNIT I:Introduction

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
1	III-I	Mrs.Pasala Sandhya	L1	structure of compiler	6	https://www.youtube.com/channel/UC_PkL8lPrz9JFRmr4KOaFkw/videos
2			L2	role of lexical analysis		
3			L3	programming language basics		
4			L4	language processing system		
			L5	evolution of programming language		
5			L6	specification of token		
UNIT II: Syntax Analysis						
1	III-I	Mrs Pasala Sandhya	L1	phases of compiler	9	https://www.youtube.com/channel/UC_PkL8lPrz9JFRmr4KOaFkw/videos
2			L2	role of parser		
3			L3	Topdown parser & bottom up parser		
4			L4	operator precedence		
5			L5	LL-1 Parser part-1		
6			L6	LL-1 Parser part-2		
7			L7	Normal Forms-2		
8			L8	Normal forms-3		
9			L9	Inference laws in PL		
UNIT- III: Bottom up parsing						
1	III-I	Mr. Mohan Mohanty	L1	Introduction to Bottom Up Parsing	9	https://www.youtube.com/playlist?list=PL5qZnEAgOgL_Z-S0D2T_u48jjAXCDJro
2			L2	LR parsers		
3			L3	LR(0) Parser		
4			L4	LR Parsing process		
5			L5	SLR(1)		
6			L6	CLR(1)		
7			L7	LALR(1)		
8			L8	Conflicts in LR Parsers		
9			L9	LR Parsing using ambiguous Grammars		
UNIT- IV: Syntax Directed Transactions						
1	III-I	Mr. Mohan Mohanty	L1	Introduction to SDT	13	https://www.youtube.com/playlist?list=PL5qZnEAgOgL_Z-S0D2T_u48jjAXCDJro
2			L2	Attributed grammar and types of attributes		
3			L3	Evaluation order of SDT		
4			L4	SDT Example 1		
5			L5	SDT for infix to postfix		
6			L6	SDT Example 2		
7			L7	SDT to Annotated Parse Tree		
8			L8	Introduction to Intermediate Code Generation/ICG		
9			L9	Three Address Code		
10			L10	Variants of Syntax Trees (DAG)		
11			L11	translation of expressions to IC		
12			L12	type checking		
13			L13	Canted flow back patching		
UNIT -V:Runtime Environments						
1			L1	runtime environment		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
2	III-I	Mr.Mohan Mohanty	L2	Acess to non local data on Stack	5	https://www.youtube.com/play_list?list=PL5qZnEAgOgl_Z-SOD2T-u48jjAXCDJro
3			L3	heap management		
4			L4	issues of code design		
5			L5	Basic blocks & Flow graphs		

Name of the Subject: PYTHON PROGRAMMING

UNIT I:Introduction

1	III-I	Mr.E Stephen Neel Joshua	L1	History, Need, Applications, REPL	6	https://www.youtube.com/channel/UC7t4AmfYIBNNOLxVUJVExQA/videos
2			L2	Python Features		
3			L3	Variables, Data Types		
4			L4	Assignment, Conditional, Identity, Membership Operators		
5			L5	Arithmetic, Relational and Logical Operators		
6			L6	Bitwise Operators		
7			L7	Variable, Assignment, keywords, io, Indentation		

UNIT II:Control Flow

1	III-I	Mr M Somasundra rao	L1	while, for	9	https://www.youtube.com/channel/UC7t4AmfYIBNNOLxVUJVExQA/videos
2			L2	if,if elis else		
3			L3	Break, Continue, Pass		
4			L4	Tuple		
5			L5	Set		
6			L6	Dictionary Part-1		
7			L7	Dictionary Part-2		
8			L8	Comprehension		
9			L9	List Part-1		
10			L10	List Part-2		

UNIT- III: Functions

1	III-I	Mr. Mohan Mohanty	L1	Function Definition, Need of functions	9	https://www.youtube.com/channel/UC7t4AmfYIBNNOLxVUJVExQA/videos
2			L2	Function Call, Function Parameters		
3			L3	Expressions and Order of Evaluation of Expressions		
4			L4	Anonymous, Fruitful functions, Return		
5			L5	Recursive Function Programs		
6			L6	Name Space in Module, Package, PIP Command		

UNIT- IV: Object Oriented Programming OOP in Python

1	III-I	Mr.E Stephen Neel Joshua	L1	Class, Object	13	https://www.youtube.com/channel/UC7t4AmfYIBNNOLxVUJVExQA/videos
2			L2	Overriding Methods		
3			L3	Self variable,Methods, Constructor Method		
4			L4	Introduction to Inheritance		
5			L5	Types of Inheritances		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
6			L6	Data Hiding		
7			L7	Exception Handling		
UNIT- V:Multithreading						
1	III-I	Mrs K Swathi	L1	Multithreading in Python		https://www.youtube.com/channel/UC7t4AmFYIBNNOLxVUJVEExQA/videos
2			L2	How to Create Threads in Python		
3			L3	Introduction to Files in Python		
4			L4	File operations in Python		
5			L5	NumPy in Python		
6			L6	Reading and writing CSV files		

Name of the Subject: DATA MINING TECHNIQUES

UNIT I:Introduction

UNIT I. Introduction						
1	III-I Mrs.Ch Shekhar		L1	Introduction to Data Mining Techniques	6	https://www.youtube.com/playlist?list=PL3HDxPOLI32L-5LXGijQGDOKEqrI7MLuL
2			L2	Major Issues of Data Mining		
3			L3	Data Mining Tools		
4			L4	Types of Data, Data Sets and Storage Systems		
			L5	Data Visualization Types		
5			L6	Proximity Measures (Similarity & Dissimilarity)		

UNIT II:Data Pre-processing

1	III-I Mrs.Ch Shekhar		L1	Major Tasks of Data Mining and Data Cleaning	7	https://www.youtube.com/playlist?list=PL3HDxPOLI32Lh6ksPvvzdO-DDQyilwaQK
2			L2	Data Pre-Processing and Data Quality		
3			L3	Data Redundancy		
4			L4	Data Integration		
5			L5	Data Transformation		
6			L6	Data Transformation using Normalization concepts		
7			L7	Data Discretization		

UNIT- III:Classification

1	III-I	Mrs.Ch Shekhar	L1	Classification Basics	3	https://www.youtube.com/playlist?list=PL3HDxPOLI32Lh6sPvVzdO-DDQyilwaQK
2			L2	Decision Tree Characteristics		
3			L3	CLASSIFICATION INTRO		

UNIT- IV: Association Analysis

1	III-I	Mrs.Ch Shekhar	L1	FP TREE	3	https://www.youtube.com/playlist?list=PL3HDxPOLI32K1CgmkgwI_lgrNleRi19Bw
2			L2	Basics of Association Rules		
3			L3	Types of item sets		

Name of the Subject: DESIGN AND ANALYSIS OF ALGORITHMS

UNIT I: Foundations of Algorithm

1			L1	ALGORITHM Definition and its specifications	
2			L2	Step Count Method	
3			L3	Recursive Algorithms	
4	III I M- B YAMSI		L4	Operation Count Method	0 https://www.youtube.com/polytictict-DI-nP5mSccQmC

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
5	III-I	Mr B VAMSI	L5	Asymptotic Notations		https://www.youtube.com/watch?v=dyf1stTfCz8&t=11s
6			L6	Amortized ANALYSIS		XeqpfyCi2HnYiI3vVLB
7			L7	O Counting Sort		
8			L8	9 Bucket Sort		
9			L9	RadixSort		
UNIT II: Divide and Conquer						
1	III-I	Mrs A SRAVANI	L1	GENERAL METHOD	8	https://www.youtube.com/playlist?list=PLzaB5mSrs9mAFE8NB5lcNijYHguyE7qlv
2			L2	MASTERS THEOREM		
3			L3	binary search final		
4			L4	Defective Chess Board		
5			L5	Finding max and min		
6			L6	Merge Sort		
7			L7	Quicksort		
8			L8	BLOCK AND STRASSENS MATRIX MULTIPLICATION		
UNIT- III: Greedy method						
1	III-I	Mr B VAMSI	L1	Greedy Technique - Optimal Merge Patterns with Huffman Coding Application	7	https://www.youtube.com/playlist?list=PLzaB5mSrs9mCPf3nm8W8lJxtz5FPq4zi
2			L2	Greedy Technique - Optimal Merge Patterns with Huffman Coding Application		
3			L3	Greedy Technique - Knapsack Problem		
4			L4	Greedy Technique - Job Sequencing with deadlines		
5			L5	Greedy Technique - Single Source Shortest Path Problem		
6			L6	Randomized Quick Sort		
7			L7	Randomly Built BST		
UNIT- IV: Dynamic Programming						
1	III-I	Mrs A SRAVANI	L1	DYNAMIC PROGRAMMING GENERAL METHOD	7	https://www.youtube.com/playlist?list=PLzaB5mSrs9mBR3b2BzA_Ege-e89S9zfMU
2			L2	CHAIN MATRIX MULTIPLICATION		
3			L3	Reliability design		
4			L4	Multi threaded matrix multiplication		
5			L5	Basics of Multi threading		
6			L6	All pairs shortest path		
7			L7	Multi threaded merge sort		
UNIT -V: Backtracking						
1	III-I	Mrs A SRAVANI	L1	Introduction to NP Hard, NP Complete	8	https://www.youtube.com/playlist?list=PL7D7174E8C900000
2			L2	BACK TRACKING GENERAL METHOD		
3			L3	N QUEEN PROBLEM		
4			L4	SUM OF SUBSETS		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
5	III-I	Mr.Naga Mallik Raj Sappa	L5	Introduction to branchandbound	6	https://www.youtube.com/playlist?list=PLfIAM0ONZwu5JJh5Z02WdJ6l92QSizeQLR
6			L6	LC SEARCH		
7			L7	DAA UNIT 5- 41 LCBB KNAPSACK		
8			L8	fifo branch and bound		

Name of the Subject: Unix and Shell Programming

Unit-I: Introduction to Unix

1	III-I	Mr.Naga Mallik Raj Sappa	L1	HISTORY_FEATURES	4	https://www.youtube.com/playlist?list=PLfIAM0ONZwu5JJh5OPbWV8PPgB68pY5o5
2			L2	STRUCTURE		
3			L3	COMMANDS		
4			L4	CMDSUBSTITUTION_EXE-MULTIPLE-CMDS		

Unit-II: File Attributes and Permissions

1	III-I	Mr.Naga Mallik Raj Sappa	L1	filecommand	4	https://www.youtube.com/playlist?list=PLfIAM0ONZwu5JJh5OPbWV8PPgB68pY5o5
2			L2	PART1_CHMOD		
3			L3	PART2_CHMOD_CONT		
4			L4	CHOWN-AND-CHGRP		

Unit-III: Using the Shell

1	III-I	Mr.Naga Mallik Raj Sappa	L1	PART1 CMD LINE STRUCTURE	8	https://www.youtube.com/playlist?list=PLfIAM0ONZwu5JJh5OPbWV8PPgB68pY5o5
2			L2	RULESFOR WRITING COMMANDS		
3			L3	PART3 META CHARCTERS		
4			L4	PART1 REDIRECTION		
5			L5	PART2 OUTPUT DIRECTION		
6			L6	SHELL LOOPS PART1		
7			L7	SHELL LOOPS PART2		
8			L8	PART1 FILTER COMMANDS		

UNIT- IV: Shell Programming

1	III-I	Mr.Naga Mallik Raj Sappa	L1	PART1 ABOUT SHELL VARIABLES	6	https://www.youtube.com/playlist?list=PLfIAM0ONZwu5JJh5OPbWV8PPgB68pY5o5
2			L2	PART2 EXPORT AND READ COMMAND		
3			L3	PART2 EXIT STATUS AND EXIT COMMAND		
4			L4	ABOUT EXPR AND HERE		
5			L5	SLEEP AND SCRIPT COMMAND		
6			L6	EVAL AND EXEC COMMANDS		

Name of the Subject:BIG DATA ANALYTICS

UNIT I:Working with Big Data

1	IV-I	Dr.E Laxmi Lydia	L1	What is Big Data?	5	https://www.youtube.com/channel/UChsn4do_4Kq0E3N9AJuDIPw
2			L2	What is Hadoop?		
3			L3	Hadoop Eco-Components		
4			L4	Hadoop Cluster		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content				
5			L5	Big Data, Complete Lecture 2						
VR 17										
1	IV-I	Dr.E Laxmi Lydia	L1	Mapper Reducer and Driver Code	4	https://www.youtube.com/channel/UChsn4do_4Kq0E3N9AJuDlPw				
2			L2	MapReduce - Partitioner						
3			L3	Map Reduce - Combiners						
4			L4	MapReduce Paradigm						
UNIT- III: Hadoop I/O										
1	IV-I	Dr.E Laxmi Lydia	L1	Execution of Word Count program	5	https://www.youtube.com/channel/UChsn4do_4Kq0E3N9AJuDlPw				
2			L2	File management tasks in Hadoop						
3			L3	Execution of Weather Datasets						
4			L4	Programming implementation of Combiners and Partitioners						
5			L5	Hadoop Components						
UNIT- IV: Admiring the Pig Architecture										
1	IV-I	Dr.E Laxmi Lydia	L1	What is Hadoop Pig	6	https://www.youtube.com/channel/UChsn4do_4Kq0E3N9AJuDlPw				
2			L2	Pig Architecture						
3			L3	Pig Data Types						
4			L4	Pig Data Types						
5			L5	Pig Execution Modes						
6			L6	Pig Operators						
UNIT -V: Applying Structure to Hadoop Data with Hive										
1	IV-I	Dr.E Laxmi Lydia	L1	What is Hive?	5	https://www.youtube.com/channel/UChsn4do_4Kq0E3N9AJuDlPw				
2			L2	Hive Commands						
3			L3	Hive Query Language						
4			L4	Hive Setup in Cloudera						
5			L5	Hive Architecture						
Name of the Subject: CRYPTOGRAPHY AND NETWORK SECURITY										
UNIT -I: Introduction to Machine Learning:										
1	IV-I	Dr.N thirupati Rao	L1	Traditional Programming Vs Machine Learning Algorithms	6	https://www.youtube.com/watch?v=cAAf8uMqLPU&list=6IBdoOg0AGcUORMVM312czbvPpQYpajO				
2			L2	Reinforcement Learning						
3			L3	Unsupervised Learning						
UNIT- II: Classification and Regression Models										
1	IV-I	Dr.N thirupati Rao	L1	Linear Separability	9	https://youtu.be/6HeFD5TKv9U				
2			L2	Logistic Regression						
3			L3	KNN Algorithm						
4			L4	Decision Trees						
5			L5	C 4.5 Algorithm						
UNIT -III: Dimensionality reduction and Support vector machines										
1	IV-I	Mr. Mohan Mohanty	L1	Principal Component Analysis (PCA)	9	https://www.youtube.com/playlist?list=PL5qZnEAgOgL_Z-SOD2T-u48jjAXCDJro				
2			L2	Margin of a Classifier						
3			L3	Dimensionality Reduction						
UNIT- IV: Clustering and Ensemble Methods										
1			L1	clustering						

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
2	IV-I	Mrs.Ch Anusha	L2	k-means algorithm	8	https://www.youtube.com/playlist?list=PL6jBdoOg0AGcUORMVM312czbvPpQYpaJO
3			L3	ML 4 GMM: gaussian mixture model		
4			L4	MLensemble methods		
5			L5	MLensemble methods		
6			L6	MLrandomforest		
7			L7	ML46ada-boosting algorithm		
8			L8	Bayesian classifier:naiv bayes classifier		

UNIT- V:ARTIFICIAL NEURAL NETWORKS:

1	IV-I	Mr.Mohan Mohanty	L1	ML - ANN-introduction	5	https://www.youtube.com/playlist?list=PL6jBdoOg0AGcG7akMwlq-i2LfVADtBoN
2			L2	ML- activation functions		
3			L3	multilayer networks & back propagation alg		
4			L4	deeplearning intro & CNN		

UNIT -V:Security at application layer

1	IV-I	Dr.K Venkata rao	L1	RSA Digital Signature Scheme,	1	https://www.youtube.com/watch?v=yYUJNS-S2o4
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PRINCIPAL
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Information Technology (A)
Reside: VSEZ, Duwada, Visakhapatnam-43



DEPARTMENT OF INFORMATION TECHNOLOGY

Digital Content Developed by Faculty during Academic Year 2020-2021

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
Name of the Subject: DataBase Management System						
UNIT I: Introduction						
1	III-I	Mrs. Avantika Tiwari	L1	Introduction to DBMS	2	https://www.youtube.com/watch?v=vB8Fg89oQlg
2		Mrs. Mani.G	L2	DataBase Architecture		https://www.youtube.com/watch?v=1d4mUcyldIM
3		Mrs. Mani.G	L3	Introduction to Relational Model	8	youtube.com/watch?v=YMkXxpTVfwo&t=28s
4		Mrs. Mani.G	L4	Types of Constraints in DBMS		https://www.youtube.com/watch?v=XFOPzOB3yp0&t=2s
5		Mrs. Mani.G	L5	Domain and Integrity Constraints		https://www.youtube.com/watch?v=N9NtUYHf3qY&t=22s
6		Mrs. Mani.G	L6	Introduction to SQL		https://www.youtube.com/watch?v=RXuRXNg1sA&t=377s
7		Mrs. Mani.G	L7	Introduction to Keys		https://www.youtube.com/watch?v=nTkRhvl8ThA&t=58s
8		Mrs. Mani.G	L8	Foreign Key and Super Key		https://www.youtube.com/watch?v=ubRgzDdU9u4
9		Mrs. Mani.G	L9	Primary Key		https://www.youtube.com/watch?v=S7IkKiZChfl
10		Mrs. Mani.G	L10	Candidate Key		https://www.youtube.com/watch?v=OKiEVo3HH4
11		Mrs. Mani.G	L11	Joins in DBMS Part 1	11	https://www.youtube.com/watch?v=7DyUSmjUwPU
12		Mrs. Mani.G	L12	Joins in DBMS Part II		https://www.youtube.com/watch?v=hMJqBN8DU-0
13		Mrs. Mani.G	L13	Joins in DBMS Part III		https://www.youtube.com/watch?v=VernPuvnd38
14		Mrs. Mani.G	L14	Queries and subqueries		https://www.youtube.com/watch?v=HAVdtvHm_6E
15		Mrs. Mani.G	L15	Nested Queries		https://www.youtube.com/watch?v=6OtT4LepSzM
16		Mrs. Mani.G	L16	need for normalization and 1NF		https://www.youtube.com/watch?v=gv9LdG3asTc&t=55s
17		Mrs. Mani.G	L17	1NF		https://www.youtube.com/watch?v=ciXAn_srPbg&t=380s
18		Mrs. Mani.G	L18	2NF		https://www.youtube.com/watch?v=CSKhSgi7x4&t=54s

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
19	Mrs. Mani.G	Mrs. Mani.G	L19	3NF	5	https://www.youtube.com/watch?v=BPijhE-GyIQ
20		Mrs. Mani.G	L20	BCNF		https://www.youtube.com/watch?v=JATae3WQGy0&t=37s
21		Mrs. Mani.G	L21	4NF		https://www.youtube.com/watch?v=lYpv_b1xX6U&t=32s
22		Mrs. Mani.G	L22	Introduction to Transaction		https://www.youtube.com/watch?v=WhQWFAMDwBw&t=14s
23		Mrs. Mani.G	L23	Transaction States and State Diagram		https://www.youtube.com/watch?v=k2DSdFnUYcQ&t=183s
24		Mrs. Mani.G	L24	Conflict Serializability		https://www.youtube.com/watch?v=nvXWxObRR1U&t=914s
25		Mrs. Mani.G	L25	View Serializability		https://www.youtube.com/watch?v=EeyOMDB9Fyc&t=226s
26		Mrs. Avantika Tiwari	L26	TimeStamp Ordering Protocol		https://www.youtube.com/watch?v=vVinYXMbSP8&t=11s
27		Mrs. Avantika Tiwari	L27	File Organisation	6	https://www.youtube.com/watch?v=gf34M_oINpl
28		Mrs. Avantika Tiwari	L28	Indexing		https://www.youtube.com/watch?v=wv7eAsPV-4M
29		Mrs. Avantika Tiwari	L29	Primary Index		https://www.youtube.com/watch?v=X-SkRZ9gCSs
30		Mrs. Avantika Tiwari	L30	Secondary Index		https://www.youtube.com/watch?v=fvA8U4fMrrc
31		Mrs. Avantika Tiwari	L31	Clustered Index		https://www.youtube.com/watch?v=2SctsW5m2xw
32		Mrs. Avantika Tiwari	L32	Tree Based Index		https://www.youtube.com/watch?v=82Uk90Vljgk&t=4s

Name of the Subject: Operating Systems

1	III-I Mrs. Ch.V. Bhargavi	L1	Introduction	6	https://youtu.be/gvaABgBTmgD <u>Introduction</u>
2		L2	Types of Operating Systems		https://youtu.be/P9hwd3CuDpg <u>Types of Operating Systems</u>
3		L3	Operating Functionalities - 1		https://youtu.be/inLq4mNBTn8 <u>Operating Functionalities - 1</u>
4		L4	Operating Functionalities - 2		https://youtu.be/rCoURqqqFVO <u>Operating Functionalities - 2</u>
5		L5	Operating System Services		https://youtu.be/dbX3VHrtoY8
6		L6	System calls		https://youtu.be/dbX3VHrtoY8
1		L1	Process and Basic Concepts of Process		https://youtu.be/v-5lecKYISO <u>Process and Basic Concepts of Process</u>

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
2	III-I	Mrs.Ch.V.Bhargavi	L2	Process States and Queuing Diagram	6	2 https://youtu.be/04Vyh2G8gIA Process States and Queuing Diagram
3			L3	Scheduling Criteria & CPU burst		3 https://youtu.be/Pt2AWJt59Y4 Scheduling Criteria & CPU burst
4			L4	Inter Process Communication		4 https://youtu.be/BjFKkngcHak Inter Process Communication
5			L5	Message Passing		5 https://youtu.be/oFL6CAPEUHY Message Passing
6			L6	Operations on Process		6 https://youtu.be/O4xT1ve81Qk
1			L1	Memory Management	9	https://youtu.be/Vsxc04dEfIs Memory Management
2			L2	Swapping		2 https://youtu.be/Lh4LRXpCL5w Swapping
3			L3	Contiguous Memory Allocation		3 https://youtu.be/EAfn-MkSBGQ Contiguous Memory Allocation
4			L4	Paging		4 https://youtu.be/oaPmmcgYypM Paging
5			L5	Table & Segmentation		5 https://youtu.be/v_Ur4UQBFIM Table & Segmentation
6			L6	Structure of Page Table & Segmentation		6 https://youtu.be/xSd8ojWYR98 Structure of Page Table & Segmentation
7			L7	Virtual Memory and Demand Paging		7 https://youtu.be/RbREGyQMc6Q Virtual Memory and Demand Paging
8			L8	Page Replacement Algorithms		8 https://youtu.be/wLooXOQe0Z4 Page Replacement Algorithms
9			L9	Page Replacement Algorithms, Thrashing		9 https://youtu.be/ZuiK8JG7L9k
1			L1	Concurrency, Process synchronization		https://youtu.be/uayXztscm-M
2			L2	Classic synchronization problems		2 https://youtu.be/Dy1NcMZicBl
3			L3	semaphores		3 https://youtu.be/fsh52uC9uPE

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
4	III-I	Mrs.Ch.V.Bhargavi	L4	Deadlocks	8	<u>4</u> https://youtu.be/He8JqoMyOLw
5			L5	Deadlock methods		<u>5</u> https://youtu.be/gozEm2wrc_g
6			L6	Deadlock methods		<u>6</u> https://youtu.be/TIG-9y0VgRc
7			L7	Deadlock methods		<u>7</u> https://youtu.be/TIG-9y0VgRc
8			L8	Monitors		<u>8</u> https://youtu.be/mXrbV0K7rY

Name of the Subject: PYTHON PROGRAMMING

1	E STEPHEN NEAL JOSHUA		L1	Python Programming Features	8	https://youtu.be/yPU4ZBbsEPw
2			L2	Python History, REPL Shell, Need of Python Programming		https://youtu.be/jqcSamIOXu8
3			L3	Python Variables and Datatypes		https://youtu.be/KRaciJ-26EE
4			L4	Python Variables, Assignment, keywords, I-O, Indentation		https://youtu.be/CkvHK5XeUgl
5			L5	Arithmetic, Relational and Logical Operators		https://youtu.be/qQVbpioQSFE
6			L6	Bitwise Operators		https://youtu.be/iSdmbrwRNdc
7			L7	Assignment, Ternary, Membership and Identity operators		https://youtu.be/bC9y_vOESAc
8			L8	Expressions Types and Order of Evaluation of Expressions		https://youtu.be/bZIXQ01f-do
1	M.SOMASUNDAR RAO		L1	Control Flow: if, if-else, if-elif-else, nested if statement	10	https://youtu.be/39n9m9OEIxc
2			L2	Control Flow: while, for statements		https://youtu.be/ipyx-hOt7BE
3			L3	Control Flow: break, continue and pass statements		https://youtu.be/T7NtPBgs5LI
4			L4	DS: List Part-1		https://youtu.be/T3VvszO1OT4
5			L5	DS :List Part-2		https://youtu.be/Go0GIH9swkY
6			L6	DS: Tuple		https://youtu.be/8cAb5balgSo
7			L7	DS: Set		https://youtu.be/J8CPf5C6cTU
8			L8	DS :Dictionary Part-1		https://youtu.be/mf1PeG9AakA
9			L9	DS :Dictionary Part-2		https://youtu.be/vT5zwwEEe3M
10			L10	Sequence and Comprehensions		https://youtu.be/6ArIYW1Eras
1	II-I	M.SOMASUNDAR	L1	Functions, Need of Functions		https://youtu.be/lf13SfB-L5c
2			L2	Function Call and Function Parameters		https://youtu.be/mvl6QR6sUGk
3			L3	Anonymous, Fruitful functions, Return Statement		https://youtu.be/bEFjNd7oib8
4			L4	Scope of a variable, global, nonlocal keywords		https://youtu.be/MfPbJIPdhz8

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
5	RAO		L5	Local, Global Variables, Parameter Passing Techniques	8	https://youtu.be/k4uncQI9la8
6			L6	Creating a Module, Different types of Import statements		https://youtu.be/_XlzkxfbleE
7			L7	Name Space in Module, Python Package and PIP		https://youtu.be/M-9fs86IFxI
8			L8	Programs on Recursive Functions		https://youtu.be/wjrG-InYEa0
1			L1	Class and Object		https://youtu.be/yr5RmhSX6vo
2			L2	Introduction to Inheritance		https://youtu.be/rdUFUQ3kDlk
3			L3	Type of Inheritances		https://youtu.be/PKDjz71yb6A
4			L4	Self-variable, Methods, Constructor Method		https://youtu.be/jIUEcyyu1Ec
5	E STEPHEN NEAL JOSHUA		L5	Data Hiding	7	https://youtu.be/ocuceoq6YLw
6			L6	Overriding Methods		https://youtu.be/mDjuNTRxaKE
7			L7	Exception Handling in Python		https://youtu.be/QsRpjNUIju0
1			L1	Multithreading in Python		https://youtu.be/64WZsWC1dw
2			L2	How to Create Threads in Python		https://youtu.be/ZK9iAkMe2A
3			L3	Introduction to Files in Python		https://youtu.be/xVSq6IWUxfA
4			L4	File Operations in Python		https://youtu.be/hyAu9H6-rIM
5	K SWATHI		L5	Reading and writing CSV files in Python	8	https://youtu.be/O3bVqbSz2sw
6			L6	Numpy in Python		https://youtu.be/oQAVkyfP_qQ
7			L7	Python Standard Library Tour		https://youtu.be/RncjKbelKL_U
8			L8	Introduction to Database Programming		https://youtu.be/Jn_3s5UeZ90

Name of the Subject: HUMAN COMPUTER INTERACTION

1		L1	HCI Introduction	4	https://www.youtube.com/watch?v=5JShjplt-ao&list=PLDuqFqct-qByycczjpltOfroiOHNGPhgG&index=2
2		L2	Importance of User Interface		https://www.youtube.com/watch?v=5JShjplt-ao&list=PLDuqFqct-qByycczjpltOfroiOHNGPhgG&index=2
3		L3	Importance of Good Design		https://www.youtube.com/watch?v=5JShjplt-ao&list=PLDuqFqct-qByycczjpltOfroiOHNGPhgG&index=2

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
4	II-II G RAVIKUMAR		L4	Benefits of GUI	5	https://www.youtube.com/watch?v=5JShjplt-ao&list=PLDuqFqct-qByycczjpltOfroi0HNGPhgG&index=2
1			L1	Human Interaction with computers		https://www.youtube.com/watch?v=jZTug0Zyo9o&list=PLDuqFqct-qByycczjpltOfroi0HNGPhgG&index=5
2			L2	Importance of human characteristics		https://www.youtube.com/watch?v=jZTug0Zyo9o&list=PLDuqFqct-qByycczjpltOfroi0HNGPhgG&index=5
3			L3	Human considerations		https://www.youtube.com/watch?v=jZTug0Zyo9o&list=PLDuqFqct-qByycczjpltOfroi0HNGPhgG&index=5
4			L4	Human interaction speeds		https://www.youtube.com/watch?v=jZTug0Zyo9o&list=PLDuqFqct-qByycczjpltOfroi0HNGPhgG&index=5
5			L5	Understanding business functions	6	https://www.youtube.com/watch?v=jZTug0Zyo9o&list=PLDuqFqct-qByycczjpltOfroi0HNGPhgG&index=5
1			L1	Design goals		https://www.youtube.com/watch?v=EME63Fkz_cA&list=PLDuqFqct-qByycczjpltOfroi0HNGPhgG&index=7
2			L2	Planning and purpose of the screen		https://www.youtube.com/watch?v=EME63Fkz_cA&list=PLDuqFqct-qByycczjpltOfroi0HNGPhgG&index=7
3			L3	organizing screen elements		https://www.youtube.com/watch?v=EME63Fkz_cA&list=PLDuqFqct-qByycczjpltOfroi0HNGPhgG&index=7

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
4			L4	Organizing screen data and content		https://www.youtube.com/watch?v=EME63Fkz_cA&list=PLDuqFqct-qByyccjpltOfroi0HNGPhgG&index=7
5			L5	Screen navigation and flow		https://www.youtube.com/watch?v=EME63Fkz_cA&list=PLDuqFqct-qByyccjpltOfroi0HNGPhgG&index=7
6			L6	Visually pleasing composition		https://www.youtube.com/watch?v=EME63Fkz_cA&list=PLDuqFqct-qByyccjpltOfroi0HNGPhgG&index=7



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Information Technology (A)
 Beside: VSEZ, Duwada, Visakhapatnam-43



DEPARTMENT OF ELECTRONICS & COMPUTER ENGINEERING

Digital Content Developed by Faculty during Academic Year 2020-2021

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
Name of the Subject: OBJECT ORIENTED ANALYSIS AND DESIGN USING UML						
UNIT I						
1	IV-I	B.VENKATESH	1.1	Introduction: Introduction to OOAD	4	https://www.youtube.com/playlist?list=PLeH-OwhK-KdsLnTM_UGEsBI7nQj3LSHPD
2			1.2	The Structure of Complex systems, The Inherent Complexity of Software		
3			1.3	Attributes of Complex System, Organized and Disorganized Complexity		
4			1.4	Bringing Order to Chaos		
5			1.5	Designing Complex Systems, Evolution of Object Model		
6			1.6	Foundation of Object Model		
7			1.7	Elements of Object Model		
8			1.8	Elements of Object Model		
9			1.9	Applying the Object Model.		
10			1.1	OOAD Concepts : TUTORIAL		
UNIT II						
1	IV-I	B.VENKATESH	2.1	The Nature of an Object	4	https://www.youtube.com/playlist?list=PLeH-OwhK-KdsLnTM_UGEsBI7nQj3LSHPD
2			2.2	Relationships among objects		
3			2.3	Nature of a Class, Relationship among Classes		
4			2.4	Interplay of Classes and Objects		
5			2.5	Identifying Classes and Objects		
6			2.6	Identifying Classes and Objects		
7			2.7	Importance of Proper Classification		
8			2.8	Key abstractions and Mechanisms		
UNIT III						
1	IV-I	B.VENKATESH	3.1	Introduction to UML: Why we model,	6	https://www.youtube.com/playlist?list=PLeH-OwhK-KdsLnTM_UGEsBI7nQj3LSHPD
2			3.2	Conceptual model of UML		
3			3.3	Conceptual model of UML. Architecture		
4			3.4	Classes		
5			3.5	Classes, Relationships		
6			3.6	Common Mechanisms		
7			3.7	Class diagrams		
8			3.8	Object diagrams		
9			3.9	UML diagrams : TUTORIAL		
10			3.10	Basic Behavioural Modeling: Interactions		
11			3.11	Interaction diagrams		
12			3.12	Use cases		
13			3.13	Use case Diagrams		
14			3.14	Use case Diagrams		
15			3.15	Activity Diagrams		
16			3.16	Activity Diagrams		

17		3.17	Use case diagrams : TUTORIAL	
UNIT IV				
1	IV-I	B.VENKATESH	4.1	Advanced Behavioural Modeling: Introduction
2			4.2	Events and signals
3			4.3	State machines
4			4.4	State machines
5			4.5	Processes and Threads
6			4.6	Time and space
7			4.7	State chart diagrams
8			4.8	State chart diagrams

				UNIT V
1	IV-I	B.VENKATESH	5.1	Architectural Modeling: Component
2			5.2	Deployment
3			5.3	Component diagrams
4			5.4	Component diagrams
5			5.5	Deployment diagrams
6			5.6	Case Study: The Unified Library application
7			5.7	Case Study: The Unified Library application
8			5.8	Case Study: The Unified ATM application
9			5.9	Case Study: The Unified ATM application
10			5.10	TUTORIAL: Railway Reservation
11			5.11	TUTORIAL: Online Bookshop

Name of the Subject: DIGITAL IMAGE PROCESSING

				UNIT I
1	IV-I	Dr.V.S.N.Murthy	1.1	Evolution of Digital image processing
2			1.2	Examples of fields that use digital image processing
3			1.3	Fundamental steps of digital image processing
4			1.4	Components of an image processing system
5			1.5	Image Sensing and Acquisition
6			1.6	Image Sampling and Quantization
7			1.7	Some basic relationships between pixels.

UNIT II: Image Transforms: Orthogonal Sinusoidal Basis Function – Discrete Fourier Transform

1	IV-I	Dr.V.S.N.Murthy	2.1	Discrete Cosine Transform	6	https://youtu.be/YhJaNUrNer4
2			2.2	Non-sinusoidal orthogonal basic function - Haar		https://youtu.be/7IMuQsBDKpE
3			2.3	Walsh		https://youtu.be/Db-czFsbvKc
4			2.4	Hadamard, Slant		https://youtu.be/gcvAcaIzA9M
5			2.5	Statistics of input signal - KL transform		https://youtu.be/gcvAcaIzA9M
6			2.6	Singular Value Decomposition		https://youtu.be/p7mfOpkGP6o

UNIT III: Image Enhancement: Need for Image Enhancement, Histogram Processing

1	IV-I	Dr.V.S.N.Murthy	3.2	Smoothing low pass filter	2	https://youtu.be/4sz27YPzeBk
2			3.3	Sharpening high pass filter		https://youtu.be/s2MDe5WJr3c
3			3.4	Image Enhancement in Frequency domain Image smoothing using low pass filter		
4			3.5	Image sharpening using high pass filter		
5			3.6	Image Restoration techniques: A model of the image degradation/restoration process		
6						https://youtu.be/s2MDe5WJr3c

7		3.7	Noise models		
8		3.8	Restoration in presence of noise: (Mean filters, Adaptive filters)		
9		3.9	Inverse filters, Wiener filter.		
10					

UNIT IV: Image Compression Need for image compression, Huffman coding

1	IV-I	Dr.V.S.N.Murthy	4.1	Arithmetic coding	2	https://youtu.be/BEuKLx_3hVo
2			4.2	LZW coding ,		
3				Run-length coding		
4			4.3	Block Transform coding		
5			4.4	Predictive coding (lossless and lossy)		
6			4.5	Image standards (JPEG, MPEG, GIF).		https://youtu.be/8oxfVGNOXY0

UNIT V: Color Image Processing:

1	IV-I	Dr.V.S.N.Murthy	5.1	Color fundaments and models	5	https://bit.ly/3kaMZSk
2			5.2	Pseudocolor image processing		https://bit.ly/3kaMZSk
3			5.3	Basic of full color image processing		https://bit.ly/3kaMZSk
4			5.4	Color image smoothing and sharpening		https://bit.ly/3kaMZSk
5			5.5	Using color in image segmentation		https://bit.ly/3kaMZSk
6			5.6	Noise in color images		https://bit.ly/3kaMZSk
7			5.7	Color image compression		https://bit.ly/3kaMZSk

Name of the Subject: Machine Learning

UNIT I

1	IV-I	Dr.N.Tirupathi Rao	1.1	Introduction to machine learning	7	https://www.youtube.com/watch?v=nWYb4Sb0vbU
2			1.2	Definition		https://www.youtube.com/watch?v=yD5I4Y7Es-w&feature=youtu.be
3			1.3	traditional programming vs machine learning algorithms		https://www.youtube.com/watch?v=5g1ZYcRsLGI
4			1.4	learning a system		https://www.youtube.com/watch?v=6HeFDSTKv9U
5			1.5	supervised learning		https://www.youtube.com/watch?v=6HeFDSTKv9U
6			1.6	unsupervised learning		https://www.youtube.com/watch?v=zSGMA09Hb-l
7			1.7	reinforcement learning		https://www.youtube.com/watch?v=cF9jxh_ZuOk
8			1.8	application areas		

UNIT II

1	IV-I	Dr.N.Tirupathi Rao	2.1	Linear Reparability	6	https://www.youtube.com/watch?v=g5xX3wDftCs
2			2.2	decision regions		https://www.youtube.com/watch?v=g5xX3wDftCs
3			2.3	linear discriminates		https://www.youtube.com/watch?v=g5xX3wDftCs
4			2.4	linear regression		https://www.youtube.com/watch?v=xvWG0oiAzXY
5			2.5	logistic regression		https://www.youtube.com/watch?v=DmbMckEfV6o
6			2.6	decision trees-ID3		https://www.youtube.com/watch?v=r37CM72Txhg
7			2.7	C4.5		https://www.youtube.com/watch?v=eil8ZqLBVXo
8			2.8	KNN		

UNIT III

1	IV-I	Dr.N.Tirupathi Rao	3.1	Dimensionality reduction	1	https://www.youtube.com/watch?v=cAAf8uMqLPU
2			3.2	Feature selection		
3			3.3	Dimensionality reduction algorithms: introduction		
4			3.4	LDA		
5			3.5	PCA		
6			3.6	Margin of a classifier		
7			3.7	Support Vector Machine		
8			3.8	Learning nonlinear hypothesis using		

9			kernel functions.	
UNIT IV				
1	IV-I	Mrs.Ch.Anusha	4.1	Introduction to clustering
2			4.2	K-means clustering
3			4.3	Gaussian mixture model
4			4.4	Ensemble Methods
5			4.5	bagging and boosting
6			4.6	Random forest
7			4.7	AdaBoost algorithms
8			4.8	Bayesian learning algorithm.
9				

				UNIT V
1	IV-I	Mrs.Ch.Anusha	5.1	Artificial neural networks: introduction
2			5.2	The perceptron
3			5.3	the perceptron learning algorithm
4			5.4	Multilayer neural networks
5			5.5	activation functions
6			5.6	Back Propagation algorithm
7			5.7	introduction to Deep learning models
8			5.8	CNN

Name of the Subject: IoT& It's Applications

				UNIT I
1	IV-I	A. Sirisha	1.1	Introduction to IoT
2			1.2	Need of Internet of Things, Internet of Things ERA
3			1.3	Characteristics of Internet of Things
4			1.4	Architectural view of Internet of Things
5			1.5	Technologies behind Internet of Things – Server- End Technology
6			1.6	Major Components of IoT system – Development Tools
7			1.7	API and device interfacing components
8			1.8	Sources of IoT
9			1.9	Examples of IoT – Smart Watch – Smart Home – Smart Phone.
10			1.10	Question Discussion
11			1.11	Revision

				UNIT II
1	IV-I	A. Sirisha	2.1	Introduction to Embedded System
2			2.2	Generic computing systems Vs. Embedded systems, Purpose of Embedded Systems
3			2.3	Typical Embedded System – Core of the Embedded System
4			2.4	Memory – Sensors and Actuators with I/O subsystems – Communication Interfaces
5			2.5	Wireless Interfaces and Wire Interfaces – Characteristics of Embedded Systems
6			2.6	Quality Attributes of an Embedded Systems.

				UNIT III
1	IV-I	A. Sirisha	3.1	M2M communication
2			3.3	M2M to IoT
3			3.4	M2M architecture
4			3.5	software development tools
5			3.6	Communication Technologies
6			3.7	Wireless communication technologies
7			3.8	Wired Communication
8			3.9	Physical Design of IoT

9			3.1	Things in IoT	
10			3.11	IoT Protocols	
11			3.12	Logical design of IoT	
12			3.13	IoT functional blocks, IoT communication models	

UNIT IV

1	IV-I	A. Sirisha	4.1	Basic building blocks of an IoT devices	3	https://youtu.be/dGuwZTbIxGg https://youtu.be/Z5_IbfOJyKo https://youtu.be/kVm8SBKv3KE
2			4.2	File Organization		
3			4.3	Introduction about the Raspberry Pi Board		
4			4.4	Operating systems for Raspberry Pi		
5			4.5	Interfaces for IoT – Serial Interface – SPI – I2C		
6			4.6	IoT Design Methodology		
7			4.7	Requirements – Process – Domain Model		
8			4.8	Information model – service – Functional View		
9			4.9	Operational View – Device & components Integration		
10			4.10	Serializability – Conflict and View		
11			4.11	Application development		

UNIT V

1	IV-I	A. Sirisha	5.1	Home Automation – Smart lighting – Home intrusion detection	3	https://youtu.be/o0vQQWtYz0A https://youtu.be/MMMsD0Wpts https://youtu.be/Nf1puB8wtT8
2			5.2	Cities – smart parking		
3			5.3	Environment – Weather monitoring system – Air Pollution Monitoring		
4			5.4	Forest Fire Detection		
5			5.5	Agriculture – smart irrigation system		

Name of the Subject: DATA COMMUNICATON AND COMPUTER NETWORKS

Unit-I: DIGITAL MODULATION TECHNIQUES:

1	IV-I	Mr.D.Chandra Mouli	1.1	ASK	1	https://www.youtube.com/watch?v=v3gXiMafizg
2			1.2	FSK		
3			1.3	M-Array PSK		
4			1.4	BPSK		
5			1.5	Band width efficiency		
6			1.6	Band width efficiency		
7			1.7	Clock recovery		
8			1.8	Probability of error and bit error rate.		
9			1.9	Tutorial		

UNIT-II: Digital Design Using HDL

1	IV-I	Mr.D.Chandra Mouli & G.Sunnetha	2.1	Serial, Parallel configuration	6	https://youtu.be/ZSjgOSqjPac https://youtu.be/nbBSb9A2TLY https://youtu.be/brMPB3lb0tc https://youtu.be/EDxDeUP-DMQ https://youtu.be/v3gXiMafizg https://youtu.be/4gnam0bg8ts
2			2.2	Topology		
3			2.3	Transmission modes		
4			2.4	Codes		
5			2.5	Error Control		
6			2.6	Synchronization And LCU		
7			2.7	Serial and Parallel Interfaces		
8			2.8	Networks and Circuits		
9			2.9	Telephone, Data modems		
10			2.10	Tutorial		

UNIT-III: Introduction:

1			3.1	Network Topologies		
2			3.2	WAN, LAN, MAN		
3			3.3	Reference models - The OSI		
4			3.4	Reference models - The OSI		
5			3.5	Reference Model- the TCP/IP		

<https://youtu.be/v3gXiMafizg>
<https://youtu.be/-cV8wfjLzc>

6	IV-I Mr.D.Chandra Mouli & G.Sunnetha	3.6	Reference Model - A Comparison of the OSI and TCP/IP Reference Models	5	https://youtu.be/oL5P6jicink https://youtu.be/ZukYTG0d5fA https://youtu.be/ABzo2FwlXsw
7		3.7	Reference Model - A Comparison of the OSI and TCP/IP Reference Models		
8		3.8	The Physical Layer: Guided Transmission Media		
9		3.9	Data Link Layer Design Issues.		
10		3.10	Data Link Layer Design Issues.		
11		3.11	Tutorial		

Unit-IV: The Data Link Layer

1	IV-I Mr.D.Chandra Mouli & G.Sunnetha	4.1	Services Provided to the Network Layer	6	https://youtu.be/nbBSb9A2TLY https://youtu.be/gi9Qb0Id7dQ https://youtu.be/95fXbjqAzhs https://youtu.be/brMPB3lb0tc https://youtu.be/zs8ssr6uUHE https://youtu.be/-cV8wfjLzc
2		4.2	Framing – Error Control		
3		4.3	Framing – Error Control – Flow Control		
4		4.4	Error Detection and Correction		
5		4.5	Error-Correcting Codes		
6		4.6	Error Detecting Codes		
7		4.7	Elementary Data Link Protocols		
8		4.8	A Utopian Simplex Protocol		
9		4.9	A Simplex Stop and Wait Protocol for an Error free channel		
10		4.10	A Simplex Stop and Wait Protocol for a Noisy Channel		
11		4.11	Tutorial		

Unit-V: The Network Layer

1	IV-I Mr.D.Chandra Mouli & G.Sunnetha	5.1	Store and Forward Packet Switching	3	https://youtu.be/n0I0yXNGgR8 https://youtu.be/fwOCDCwEivE https://youtu.be/SrFKNEyRbTE
2		5.2	Store and Forward Packet Switching		
3		5.3	Services Provided to the Transport layer		
4		5.4	Implementation of Connectionless Service		
5		5.5	Implementation of Connection Oriented Service		
6		5.6	Comparison of Virtual Circuit and Datagram Networks		
7		5.7	Tutorial		

Name of the Subject: PYTHON PROGRAMMING

UNIT I: Introduction

1	III-I M.SOMASUNDAR	1.1	Introduction: History of Python	8	https://youtu.be/yPU4ZBbsEPw https://youtu.be/jqcSaml0Xu8 https://youtu.be/KRaciJ-26EE https://youtu.be/CkvHK5XeUgI https://youtu.be/qQVbpioQSFE https://youtu.be/jSdmbrwRNdc https://youtu.be/bC9y_vOE5Ac https://youtu.be/bZIXQ01f-do
2		1.2	Need of Python Programming		
3		1.3	Applications Basics of Python		
4		1.4	Programming Using the REPL(Shell)		
5		1.5	Running Python Scripts		
6		1.6	Variables, Assignment		
7		1.7	Keywords, Input-Output, Indentation.		
8		1.8	Types, Operators and Expressions: Types - Integers, Strings, Booleans		
9		1.9	Operators- Arithmetic Operators, Comparison (Relational) Operators		
10		1.1	Assignment Operators, Logical Operators		
11		1.11	Bitwise Operators, Membership Operators, Identity Operators		
12		1.12	Expressions and order of evaluations.		
13		1.13	Control Flow- if, if-elif-else		
14		1.14	for, while		

UNIT II

1		2.1	break, continue, pass		
2		2.2	Data Structures Lists - Operations		

3	M.SOMASUNDAR	2.3	Slicing, Methods, Tuples	6	https://youtu.be/j9n9m9OE1xc
4		2.4	Sets, Dictionaries		https://youtu.be/ipyx-hOt7BE
5		2.5	Sequences, Comprehensions.		https://youtu.be/T7NtPBgs5LI
6		2.6	Functions- Defining Functions		https://youtu.be/T3VvszO10T4
7		2.47	Calling Functions, Passing Arguments		https://youtu.be/Go0GIH9swkY
8		2.8	Keyword Arguments, Default Arguments		https://youtu.be/8cAbSbaIgSo
9		2.9	Variable-length arguments		https://youtu.be/J8CPf5C6cTU
10		2.1	Anonymous Functions, Fruitful Functions		
11		2.11	Scope of the Variables in a Function		
12		2.12	Global and Local Variables		

UNIT III

1	III-I	M.SOMASUNDAR	3.1	Modules- Creating modules	8	https://youtu.be/lfl3SIB-L5c
2			3.2	import statement, from. Import statement		https://youtu.be/myl6QR6sUGk
3			3.3	name spacing		https://youtu.be/bEFjNd7oib8
4			3.4	Python packages-Introduction to PIP		https://youtu.be/MfPbJIPdhz8
5			3.5	Installing Packages via PIP		https://youtu.be/k4uncQl9la8
6			3.6	Using Python Packages		https://youtu.be/XIzkxfblcE
7			3.7	Object Oriented Programming OOP in Python: Classes		
8			3.8	'self variable', Methods		
9			3.9	Constructor Method		
10			3.1	Inheritance		

UNIT IV

1	III-I	M.SOMASUNDAR	4.1	Inheritance	7	https://youtu.be/yr5RmhSX6vo
2			4.2	Overriding Methods		https://youtu.be/rdUFUO3kDIk
3			4.3	Data hiding		https://youtu.be/PKDjz71yb6A
4			4.4	Error and Exceptions: Difference between an Error and Exception		https://youtu.be/jlUEcyyu1Ec
5			4.5	Handling Exception, try except block		https://youtu.be/ocuccoq6YLw
6			4.6	Raising Exceptions		https://youtu.be/mDjuNTRxaKE
7			4.7	User Defined Exceptions		https://youtu.be/OsRpjNUlju0
8			4.8	Multithreading: Understanding threads		
9			4.9	Forking threads synchronizing the threads		
10			4.1	Programming using multithreading		
11			4.11	File Handling: Python File(doc and csv) Operation Reading config files in python		
12			4.12	Writing log files in python		

UNIT V

1	III-I	M.SOMASUNDAR	5.1	Understanding read functions	2	https://youtu.be/64WZsWC1dRw
2			5.2	Understanding write functions		https://youtu.be/ZK9iAkdlMe2A
3			5.3	Manipulating file pointer using seek, Programming using file operations		https://youtu.be/xVSa6IW1xfAA
4			5.4	Standard Libraries: Introduction to NumPy and Pandas		

Name of the Subject: Microprocessors and Microcontrollers

UNIT I :8086/8088 MICROPROCESSORS

1	III-I	G.INDIRA DEVI	1.1	Introduction	7	https://youtu.be/6k-xsmP5kdk
2			1.2	Main features		https://youtu.be/eA5znhSPdM4
3			1.3	Architecture of 8086 microprocessor		https://youtu.be/6nPhWNGd6R0
4			1.4	Signal description of 8086 Architecture		https://youtu.be/i6wFDkFXvW0
5			1.5	bus interfacing unit, execution unit, 8086 system timing		https://youtu.be/qWU5mfKmSX
6			1.6	Minimum mode of 8086 system and timings		https://youtu.be/AVvovx1DNaW

7		1.7	Maximum mode of 8086 system and timings		https://youtu.be/5a8ddjhITII
8		1.8	Architecture of 80386 processor		
9		1.9	Comparison of Pentium and other advanced processors		

UNIT II: 8086 PROGRAMMING: Program development steps

1	III-I	G.INDIRA DEVI	2.1	Instructions-Data transfer & Arithmetic	https://youtu.be/UCjkPBvreeA https://youtu.be/8w9HXXhy-Xc https://youtu.be/iioM4IIZM3Y https://youtu.be/dzSV3vfBqw https://youtu.be/BglrYLLDXak https://youtu.be/BSnpbYzikhc https://youtu.be/QuRSr55OH04 https://youtu.be/ymVDQ-O-bz8
2			2.2	Loop instructions, string instruction, machine control instructions	
3			2.3	addressing modes,	
4			2.4	assembler directives	
5			2.5	interrupts and interrupt responses	
6			2.6	writing simple programs with an assembler	
7			2.7	assembly language program development tools.	

UNIT III: 8086 INTERFACING: Semiconductor memories interfacing(RAM,ROM)

1	III-I		3.1	Intel8259 programmable interrupt controller	6	https://youtu.be/h6qS2R3TAII https://youtu.be/3ecwmV6TDJA https://youtu.be/UXQ8VM2KgvL https://youtu.be/czdSvuDriZ8 https://youtu.be/28NdwYmcRE4 https://youtu.be/pUbT1xuikus
2			3.2	Intel 8237a DMA controller		
3			3.3	Intel 8255 programmable peripheral interface		
4			3.4	Intel8279 programmable keyboard/display controller		
5			3.5	8251 USART interfacing.		

UNIT IV: 8051 MICROCONTROLLER: Architecture, hardware concepts

1	III-I	G.INDIRA DEVI	4.1	input/output ports and circuits	7	https://youtu.be/HrKYCagz_W4 https://youtu.be/GSq5wHuO_QQ https://youtu.be/5FzF4sIOWkU https://youtu.be/P4GEmsuevMQ https://youtu.be/fP4NK8vJGKc https://youtu.be/H3IYQPiiWAI https://youtu.be/Mi-8Xsitfre
2			4.2	external memory, counters/timers		
3			4.3	serial data input/output		
4			4.4	interrupts		
5			4.5	Assembly language programming: Instructions		
6			4.6	addressing modes		
7			4.7	simple Programs		
8			4.8	A/D and D/A converters.		
9			4.9	Displays (LED, 7-segment display unit)		
10			4.11	Interfacing: keyboard		
11			4.11	Stepper motor interfacing.		

UNIT V: Introduction, characteristics of PIC microcontroller

1	III-I	G.INDIRA DEVI	5.1	PIC microcontroller families	4	https://youtu.be/ZSBYLwg9INo https://youtu.be/yiswD8CM3OI https://youtu.be/CzSAr9OlngY https://youtu.be/5FzF4sIOWkU
2			5.2	memory organization		
3			5.3	parallel and serial input and output		
4			5.4	Timers, Interrupts		
5			5.5	PIC 16F877 architecture		
6			5.6	instruction set of the PIC 16F877		
7			5.5	Serlizability - Conflict and View		
8			5.6	Introduction to Lock management		
9			5.7	Lock Based Concurrency Control		
10			5.8	Concurrency without Locking		
11			5.9	Timestamp- Based Concurrency control		
12			5.10	Optimistic Concurrency Control		
13			5.11	Introduction to Aries- The Log		
14			5.12	The Write-Ahead log, protocol check pointing		

Name of the Subject: DIGITAL IC APPLICATIONS

UNIT-I: Digital Logic Families and Interfacing

1		1.1	Introduction to logic families		https://youtu.be/K3DsWk0OEQ
2		1.2	CMOS logic		https://youtu.be/YTxDeHr_mK
3		1.3	CMOS steady state		https://youtu.be/NV170pCfb9U
4		1.4	CMOS dynamic electrical behavior		https://youtu.be/2IXyghNP-Fw

5	III-I D MADHUSUDAN	1.5	CMOS dynamic electrical behavior	13	https://youtu.be/l9cJvccEB4
6		1.6	CMOS logic families, Bipolar logic		https://youtu.be/zPKDHfhZdNU
7		1.7	transistor-transistor logic, TTL families		https://youtu.be/6DzmmTgtapc
8		1.8	CMOS/TTL interfacing, low voltage CMOS logic and interfacing		https://youtu.be/w8sfjmE2gm0
9		1.9	CMOS/TTL interfacing, low voltage CMOS logic and interfacing		https://youtu.be/B8Kwltx2VUY
10		1.10	Emitter coupled logic		https://youtu.be/sQ_hFKGP9ts
11		1.11	Tutorial		https://youtu.be/atJ5PYalmaY
					https://youtu.be/A7uqUpNs_jY
					https://youtu.be/pouroIN0Lzk

UNIT-II: Digital Design Using HDL

1	III-I D MADHUSUDAN		2.1	Design flow, program structure	12	https://youtu.be/_ruKI46Mg
2			2.2	History of VHDL, VHDL requirements		https://youtu.be/9hb7XVuU8sA
3			2.3	Levels of Abstraction		https://youtu.be/89c9MYynsNk
4			2.4	Elements of VHDL		https://youtu.be/addUx3o63uU
5			2.5	Concurrent and Sequential Statements		https://youtu.be/xOQpkGBbwVI
6			2.6	Concurrent and Sequential Statements		https://youtu.be/BO6brGT0egs
7			2.7	Packages, Libraries and Bindings		https://youtu.be/01cEuHL5IGs
8			2.8	Packages, Libraries and Bindings		https://youtu.be/T4r-opNoOXM
9			2.9	Subprograms, Comparison of VHDL and Verilog HDL		https://youtu.be/8WOSZOY2AQo
10			2.10	Tutorial		https://youtu.be/Ohuaaa0JZnrM

UNIT-III: VHDL Modelling

1	III-I D MADHUSUDAN	3.1	Simulation, Logic Synthesis	9	
2		3.2	Inside a logic Synthesizer, Functional		
3		3.3	Gate-Level verification		
4		3.4	Place and Route, Post Layout Timing Simulation		
5		3.5	Place and Route, Post Layout Timing Simulation		
6		3.6	Static Timing		
7		3.7	Major Netlist formats for design representation		
8		3.8	Tutorial		
9		3.9	Memories		
10		3.10	ROM: Internal structure, 2D-Decoding		
11		3.11	Commercial ROM types, timing and applications		
12		3.12	Static RAM: Internal structure		
13		3.13	SRAM timing, standard, synchronous SRAMS		
14		3.14	Dynamic RAM: Internal structure		
15		3.15	Timing, synchronous Drams		
16		3.16	Tutorial		

UNIT-IV: Combinational Logic Design

1	III-I D MADHUSUDAN	4.1	Adders & Subtractor	14	https://youtu.be/829bmaIHCPs https://youtu.be/MUVU_o33Vt0 https://youtu.be/Lqb2rhbELFU https://youtu.be/XsHLmS35N2E https://youtu.be/wUpQbNmFElk https://youtu.be/8McS0_jZuRI https://youtu.be/VrbWKPiPks https://youtu.be/tTCAXAxSXAO https://youtu.be/mf0Yn3x_jDw https://youtu.be/fkDFvDcEB7s https://youtu.be/kuJ5dcKbbQ! https://youtu.be/dTLLHkeWYAE https://youtu.be/oLNLjc6v44U https://youtu.be/EfbfewqsV6g
2		4.2	Ripple Adder, Look Ahead Carry Generator		
3		4.3	Binary Parallel Adder, Binary Adder-Subtractor		
4		4.4	ALU, Decoders		
5		4.5	Encoders, three state devices		
6		4.6	Multiplexers and demultiplexers		
7		4.7	Code Converters		
8		4.8	parity circuits, comparators, multipliers		
9		4.9	Barrel Shifter, Simple Floating-Point Encoder		
10		4.10	Cascading Comparators, Dual Priority Encoder		
11		4.11	Design considerations with relevant Digital ICs		
12		4.12	Modelling of Circuits by using VHDL.		

13		4.13	Modeling of Circuits by using VHDL.	
14		4.14	Modeling of Circuits by using VHDL.	
15		4.15	Tutorial	
UNIT-V: Sequential Logic Design:				
1	III-I D MADHUSUDAN	5.1	SSI Latches and Flip-Flops	https://youtu.be/xflmv8iVcQA https://youtu.be/r9BTPd7DCrQ https://youtu.be/mmXgpwDzs94 https://youtu.be/B0vv3GDtFLw https://youtu.be/J6XF9h2FXJw
2		5.2	Counters	https://youtu.be/xflmv8iVcQA https://youtu.be/r9BTPd7DCrQ https://youtu.be/mmXgpwDzs94 https://youtu.be/B0vv3GDtFLw https://youtu.be/J6XF9h2FXJw
3		5.3	Design of Counters using Digital ICs	https://youtu.be/xflmv8iVcQA https://youtu.be/r9BTPd7DCrQ https://youtu.be/mmXgpwDzs94 https://youtu.be/B0vv3GDtFLw https://youtu.be/J6XF9h2FXJw
4		5.4	Ring Counter, Johnson Counter	https://youtu.be/xflmv8iVcQA https://youtu.be/r9BTPd7DCrQ https://youtu.be/mmXgpwDzs94 https://youtu.be/B0vv3GDtFLw https://youtu.be/J6XF9h2FXJw
5		5.5	Modulus N Synchronous Counters	https://youtu.be/xflmv8iVcQA https://youtu.be/r9BTPd7DCrQ https://youtu.be/mmXgpwDzs94 https://youtu.be/B0vv3GDtFLw https://youtu.be/J6XF9h2FXJw
6		5.6	MSI Registers, Shift Registers	https://youtu.be/xflmv8iVcQA https://youtu.be/r9BTPd7DCrQ https://youtu.be/mmXgpwDzs94 https://youtu.be/B0vv3GDtFLw https://youtu.be/J6XF9h2FXJw
7		5.7	Modes of Operation of Shift Registers	https://youtu.be/xflmv8iVcQA https://youtu.be/r9BTPd7DCrQ https://youtu.be/mmXgpwDzs94 https://youtu.be/B0vv3GDtFLw https://youtu.be/J6XF9h2FXJw
8		5.8	Universal Shift Registers, MSI Shift Registers	https://youtu.be/xflmv8iVcQA https://youtu.be/r9BTPd7DCrQ https://youtu.be/mmXgpwDzs94 https://youtu.be/B0vv3GDtFLw https://youtu.be/J6XF9h2FXJw
9		5.9	Design considerations with relevant Digital ICs	https://youtu.be/xflmv8iVcQA https://youtu.be/r9BTPd7DCrQ https://youtu.be/mmXgpwDzs94 https://youtu.be/B0vv3GDtFLw https://youtu.be/J6XF9h2FXJw
10		5.10	Modeling of circuits by using VHDL.	https://youtu.be/xflmv8iVcQA https://youtu.be/r9BTPd7DCrQ https://youtu.be/mmXgpwDzs94 https://youtu.be/B0vv3GDtFLw https://youtu.be/J6XF9h2FXJw
11		5.11	Modeling of circuits by using VHDL.	https://youtu.be/xflmv8iVcQA https://youtu.be/r9BTPd7DCrQ https://youtu.be/mmXgpwDzs94 https://youtu.be/B0vv3GDtFLw https://youtu.be/J6XF9h2FXJw

12		5.12	Modeling of circuits by using VHDL.	https://youtu.be/xflmv8iVcQA https://youtu.be/r9BTPd7DCrQ https://youtu.be/mmXgpwDzs94 https://youtu.be/B0vv3GDtFLw https://youtu.be/J6XF9h2FXJw
13		5.13	Tutorial	https://youtu.be/xflmv8iVcQA https://youtu.be/r9BTPd7DCrQ https://youtu.be/mmXgpwDzs94 https://youtu.be/B0vv3GDtFLw https://youtu.be/J6XF9h2FXJw

Name of the Subject: Linear IC Applications

UNIT I: Introduction

1	III-I	V.APPALA RAJU	1.1	Block diagram of Operational amplifier	7	https://youtu.be/59MK_7Eq9EU https://youtu.be/h2D0Dwep0QA https://youtu.be/8CselaTy6ik https://youtu.be/PWj_wEr_HkU https://youtu.be/Y4r8e8N4hVQ https://youtu.be/3X4MtEeNF1Y https://youtu.be/Lkk2T5tqCoc
2			1.2	Differential amplifier DC analysis dual input balanced output configuration		
3			1.3	Differential amplifier AC analysis dual input balanced output configuration		
4			1.4	Properties of other differential amplifier configuration (Dual Input Unbalanced Output)		
5			1.5	Single Ended Input – Balanced/Unbalanced Output		
6			1.6	Cascade Differential Amplifier Stages		
7			1.7	Level translator		
8			1.8	revision		

UNIT II

1	III-I	V.APPALA RAJU	2.1	Inverting and Non-inverting amplifier	6	https://youtu.be/5OMvczXUGZs https://youtu.be/xoKdUT4xn1c https://youtu.be/DEk7bqEsWL8 https://youtu.be/iWV3CGRpYFk https://youtu.be/K09VrEMu9hc https://youtu.be/lz8Mld4hbjE
2			2.2	Ideal characteristics of OP-Amp		
3			2.3	Practical characteristics of OP-Amp		
4			2.4	DC and AC characteristics		
5			2.5	741 op-amp & its features		
6			2.6	Measurement of Input & Out put Off set voltages & currents.		
7			2.7	slew rates, CMRR, PSRR		
8			2.8	Frequency Compensation technique		

UNIT III

1	III-I	V.APPALA RAJU	3.1	Linear Applications: Summing, scaling and averaging amplifiers	11	https://youtu.be/qWdMTxZXYIw https://youtu.be/e_DpPeWjkRE https://youtu.be/MFiJaUjd0vw https://youtu.be/xKSEYhIBy4w https://youtu.be/CA30kyTR79Q https://youtu.be/ZltRr6yQhnQ https://youtu.be/6ymRRKsSGnk https://youtu.be/yZKPvOM-XFw https://youtu.be/L3EmZBF2mOw https://youtu.be/vnpAIMPE8to https://youtu.be/tbaAgtEFUWE
2			3.2	Integrator and differentiator		
3			3.3	Difference amplifier, Instrumentation amplifier		
4			3.4	V to I, I to V converters, Buffers		
5			3.5	Non – Linear Applications: Comparator, Schmitt Trigger, AC amplifier		
6			3.6	Multivibrators, function generator		
7			3.7	log amplifier and anti-log amplifiers		
8			3.8	Precision rectifiers and Revision		

UNIT IV

1	III-I	V.APPALA RAJU	4.1	Introduction to logic families	13	https://youtu.be/m9IJZxUS68 https://youtu.be/THntle9pZxE https://youtu.be/ahRQgHQbESY https://youtu.be/WhcZXn80Wps https://youtu.be/OiLRHOptgg https://youtu.be/CqHeB5MLREE https://youtu.be/s077NjhogTw https://youtu.be/0OAbRVTsMu0 https://youtu.be/ShvKY1qZR14 https://youtu.be/rI2_IBhndxs https://youtu.be/uxas-l3FHQ8
2			4.2	CMOS logic		
3			4.3	CMOS steady state and dynamic electrical behavior		
4			4.4	CMOS logic families		
5			4.5	Bipolar logic, transistor-transistor logic		
6			4.6	TTL families		
7			4.7	CMOS/TTL interfacing		
8			4.8	Emitter coupled logic.		

UNIT V

1	III-I	V.APPALA RAJU	5.1	Adders & Subtractors	5	https://youtu.be/qmZsB96ngYk https://youtu.be/hMyTNuWWmd https://youtu.be/dlLndHREsGBY https://youtu.be/VYO Ae5kulu8 https://youtu.be/Jh6QzyEzuS4
2			5.2	Decoders, Encoders		
3			5.3	Multiplexers and Demultiplexers, Barrel Shifter.		
4			5.4	SSI Latches and Flip-Flops		
5			5.5	Counters, Design of Counters using Digital ICs, Ring Counter		
6			5.6	Johnson Counter, Modulus N Synchronous Counters		
7			5.7	MSI Registers		
8			5.8	Shift Registers		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
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Name of the Subject: Managerial Economics and Financial Analysis

UNIT I: Introduction to Managerial Economics and Demand Analysis

1	II-I	Mrs.Audhiti datta	1.1	Introduction of Managerial Economics ,Definitions	8	https://youtu.be/SpqDiWex4Eg https://youtu.be/KoDJJrafWlg https://youtu.be/_uiABS-ihMc https://youtu.be/rK9PAYQLHMY https://youtu.be/wbZ1tA90fw https://youtu.be/4CLqQvc7ud8 https://youtu.be/zuGsFgizv3o https://youtu.be/vvuABrEXzlg
2			1.2	Scope of Managerial Economics		
3			1.3	Managerial Economics and its relation with other subjects		
4			1.4	Concepts of Demand, and its types.		
5			1.5	Factors Determining Demand, demand schedule ,demand curve		
6			1.6	Law of Demand and its exceptions		
7			1.7	The concept of Elasticity of Demand & Types of Elasticity of Demand		
8			1.8	Techniques of Demand Forecasting		

Unit- 2 Production and cost analysis

1	II-I	Mrs.Audhiti datta	2.1	Introduction and concept of Production function - Cobb-Douglas and - Leontief production function	8	https://youtu.be/Cb6gA2hcEm4 https://youtu.be/KVsGmhsQkXA https://youtu.be/naQ-5FaVAAU https://youtu.be/gtsE82uvZi0 https://youtu.be/4zhzQnQx5W0 https://youtu.be/QEG5YT06M7w https://youtu.be/ucz3TuISW2M https://youtu.be/ttCa9mWJ-xE
2			2.2	Law of Variable proportions		
3			2.3	ISO Quant's,Isocosts , Least cost combination factors		
4			2.4	Concept of returns to scale		
5			2.5	Economies of scale		
6			2.6	The concept of Cost and its different types		
7			2.7	The concept of Break Even Analysis with Diagrammatic presentation		
8			2.8	Problem on BEP		

Unit – 3 part I Introduction to Markets

1	II-I	Mrs.Audhiti datta	3.1	The concept of Market Structures and its classification	7	https://youtu.be/sq5kxEH-DkE https://youtu.be/3LvSBNouAes https://youtu.be/GdEuNiCWNyU https://youtu.be/P8guHKf_uP4 https://youtu.be/xQUWwT7j4Kw https://youtu.be/xFnLMgsawpc https://youtu.be/2RIAU7Vbtr4
2			3.2	Features and Price–Out Put Determination under the Perfect competition		
3			3.3	Features and Price–Out Put Determination under the Monopoly		
4			3.4	Features and Price–Out Put Determination under the Monopolistic competition		
5			3.5	Features and Price–Out Put Determination under the Oligopoly		
6			3.6	Significance of Pricing &Methods of Pricing		
7			3.7	Part II - Features and evaluation of Sole Trader and Partnership		

8		3.8	Features and evaluation of Joint Stock Company		
9		3.9	Features and evaluation of Public Enterprises		
10		3.10	Meaning and features of Business Cycles, Phases of Business Cycle		
Unit-IV: Introduction to Financial Accounting					
1	II-I Mrs.Audhiti datta	4.1	Definition of accounting, Principles of accounting	5	https://youtu.be/L-4oys0Ch2k https://youtu.be/c78hkPUtbhM https://youtu.be/Y6rMLphs-QU https://youtu.be/eFA8CbNaVu8 https://youtu.be/UNLRRrG-7IM
2		4.2	Double Entry System, Rules of Accounting		
3		4.3	Journal, Ledger preparation		
4		4.4	Trail balance and final accounts		
5		4.5	Model problems		
6		4.6	Model problems		
7		4.7	Model problems		
8		4.8	Model problems		
9		4.9	Model problems		

Unit-V: Capital and Capital Budgeting Decisions

1	II-I Mrs.Audhiti datta	5.1	Introduction to Capital, Classification of Capital, Time value of money	12	https://youtu.be/qJ7H2R9W_Ck https://youtu.be/fMHkOoW9g50 https://youtu.be/nGoDGQVb8co https://youtu.be/aLj4f7hFXp4 https://youtu.be/33u8KyDeleQ https://youtu.be/2FUDwP-daaA
2		5.2	Classification of capital		
3		5.3	Traditional Methods (Payback period, Accounting rate of return)		
4		5.4	Modern methods (Net Present Value method, Internal Rate of Return Method and Profitability Index Method) (Simple Problems)		
5		5.5	Modern methods (Net Present Value method, Internal Rate of Return Method and Profitability Index Method) (Simple Problems)		

Name of the Subject: Signals & Systems

UNIT I: Introduction

1	II-I Dr. Hemanta Kumar Sahu	1.1	Definition and classification of Signals and Systems	12	https://youtu.be/Og1Uicx0ikE https://youtu.be/wYXNSTHZAPI https://youtu.be/RijZ9I2YuCQ https://youtu.be/lEg-s5DiOxs https://youtu.be/PwFilIn4Zrm https://youtu.be/_duVYfSiRGE https://youtu.be/GSCm3rzfxvQ https://youtu.be/gSBxC7Yqz4s https://youtu.be/REdzhgPUsIA
2		1.2	Operations on signals: time-shifting, time-scaling		
3		1.3	amplitude-shifting, amplitude-scaling		
4		1.4	Complex exponential and sinusoidal signals,		
5		1.5	Singularity function and related functions: impulse function, unit step, ramp function		
6		1.6	Analogy between vectors and signals, orthogonal signal space		
7		1.7	Signal approximation using orthogonal functions		
8		1.8	Mean square error, closed or complete set of orthogonal functions, Orthogonality in complex functions		

UNIT II

1		2.1	Fourier series representation of continuous time periodic signals		https://youtu.be/B8LTlbs2v1k https://youtu.be/ghf2MoYlJWs https://youtu.be/iIeb0lskm0A https://youtu.be/CPVOHXwuQc0 https://youtu.be/UX191OhVSdl
2		2.2	properties of Fourier series, Dirichlet's conditions		
3		2.3	Trigonometric Fourier series and Exponential Fourier series		
4		2.4	Complex Fourier spectrum		

5	II-I	Dr. Hemanta Kumar Sahu	2.5	Deriving Fourier transform from Fourier series, Fourier transform of arbitrary signal,	12	https://youtu.be/V36fWbG9val https://youtu.be/2XevlCDSrSA https://youtu.be/FaAZ3KvkV7k https://youtu.be/AvvijzVi_irI https://youtu.be/gK_nMmS2wEE https://youtu.be/ARzl6awnaiY https://youtu.be/wNUOXO6Dybfw
6			2.6	Fourier transform of standard signals, Fourier transform of periodic signals, properties of Fourier transforms		
7			2.7	Fourier transforms involving impulse function and Signum function.		
8			2.8	Introduction to Hilbert Transform.		

UNIT III

1	II-I	Dr. Hemanta Kumar Sahu	3.1	Sampling theorem – Graphical and analytical proof for Band Limited Signals	5	
2			3.2	Sampling theorem – Graphical and analytical proof for Band Limited Signals		
3			3.3	impulse sampling, Natural and Flat top Sampling		
4			3.4	Reconstruction of signal from its samples		
5			3.5	Effect of under sampling : Aliasing. Introduction to Band Pass sampling		https://youtu.be/VDIYijmZMIA https://youtu.be/purmLmRdL8wc https://youtu.be/RANepQXObHI https://youtu.be/XgQh8p8M2mg https://youtu.be/tekz8udSmtw
6			3.6	Linear system, Impulse response, Linear time invariant (LTI) system		
7			3.7	Transfer function of a LTI system. Filter characteristics of linear systems.		
8			3.8	Signal bandwidth, system bandwidth, Ideal LPF, HPF and BPF characteristics		

UNIT IV

1	II-I	Dr. Hemanta Kumar Sahu	4.1	Concept of convolution in time domain and frequency domain	11	
2			4.2	Graphical representation of convolution, Convolution property		
3			4.3	Cross correlation and auto correlation functions, properties of cross correlation and auto correlation of functions		https://youtu.be/o7qFf6xQ5Jo https://youtu.be/W4NhZkxCk48 https://youtu.be/X9jUYBruFGk https://youtu.be/cg3vkcl28Pw https://youtu.be/vPaNkdYeaEM https://youtu.be/K-r5vFpr3YQ https://youtu.be/WLH9ZoEfwwI https://youtu.be/PCQnH6SUZw8 https://youtu.be/V6F1FLwyh8s https://youtu.be/sPRHOUS95Z8 https://youtu.be/CKG8fPhq-UU
4			4.4	Cross correlation and auto correlation functions, properties of cross correlation and auto correlation of functions		
5			4.5	Energy density spectrum, Parseval's theorem		
6			4.6	Power density spectrum		
7			4.7	Relation between auto correlation function and energy/power spectral density function		
8			4.8	Relation between convolution and correlation		

UNIT V

1			5.1	Review of Laplace transforms, Partial fraction expansion, Inverse Laplace transform		
2			5.2	Concept of region of convergence (ROC) for Laplace transforms, constraints on ROC for various classes of signals, Properties of L.T.'s, Relation between L.T.'s, and F.T. of a signal.		https://youtu.be/Ig_ExbgGusa https://youtu.be/15XGVfmv40M https://youtu.be/OBRX-1D6Gmw https://youtu.be/62nwi9lvVmU

3	II-I Dr. Hemanta Kumar Sahu	5.3	Fundamental difference between continuous-time and discrete-time signals	16	https://youtu.be/6FBbyht5_WI https://youtu.be/lBMT9-Q447Y https://youtu.be/WmfLhXQ0VvY https://youtu.be/nL65NPTxicQ https://youtu.be/kSlnqfzrQrA https://youtu.be/aXzWuCtHzFQ https://youtu.be/ZAzPqSSD9Rc https://youtu.be/cYHDZZXbH24 https://youtu.be/tDNgC-pxIMQ https://youtu.be/I9VFUIPsLK8 https://youtu.be/hWMp94v_aOc https://youtu.be/JTzKuRXCyhU
4		5.4	discrete time signal representation using complex exponential and sinusoidal components		
5		5.5	Periodicity of discrete time using complex exponential signal		
6		5.6	Concept of Z- Transform of a discrete sequence ,Distinction between Laplace, Fourier and Z transform		
7		5.7	Region of convergence in Z-Transform, constraints on ROC for various classes of signals		
8		5.8	Inverse Z-transform, properties of Z-transforms		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
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Name of the Subject: Digital System Logic Design

UNIT I: Introduction

UNIT-I

1	II-I D MADHUSUDAN	1.1	Representation of Signed numbers	7	https://youtu.be/riXffw2pq5w https://youtu.be/3T04wuYRmJg https://youtu.be/5GqfB1HwEQs https://youtu.be/Y-r0j31te7o https://youtu.be/4vhzMDEaQ6g https://youtu.be/HEt8rDrLpEY https://youtu.be/-Hmez6El8MI
2		1.2	Conversions		
3		1.3	r's compliment(binary, BCD)		
4		1.4	r-1's compliment(binary, BCD)		
5		1.5	ASCII code		
6		1.6	Excess -3 code,Gray code,		
7		1.7	2421 & 84-2-1 codes		
8		1.8	Error detection and correction – Hamming Code,		
9		1.9	Logic gates NAND, NOR,		
10		1.10	NOT, AND, OR		
11		1.11	EX-OR, EX-NOR,		
12		1.12	two-level implementation-AOI,		
13		1.13	OAI.		
14		1.14	NAND implementation		
15		1.15	NOR IMPLEMENTATION		

UNIT-II Boolean Algebra & Minimization

1	II-I D MADHUSUDAN	2.1	Boolean laws and theorems		
2		2.2	Boolean theorems		
3		2.3	min-terms and max-terms		
4		2.4	standard sum-of-products		
5		2.5	Standard product-of-sum representations		
6		2.6	minimization of switching functions using Boolean theorem		
7		2.7	Karnaugh map-2 Variable and 4-Variable		
8		2.8	Don't-care conditions		
9		2.9	Minimization of switching functions using K-Map up to 5 variables.		

Unit-III: Combinational Circuits:

1		3.1	Design of Half adder		https://youtu.be/3X_QZlIGcTg
2		3.2	Design of full adder		
3		3.3	Design of half subtractor		
4		3.4	Design of full subtractor		
5		3.5	Binary Adder		

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II-I D MADHUSUDAN

3.6	Binary Adder - Subtractor,
3.7	BCD Adder.,
3.8	Comparator
3.9	Decoders,
3.10	Priority encoders
3.11	Multiplexers, demultiplexers
3.12	Implementation of higher order circuits using lower order circuits
3.13	Realization of Boolean functions using decoders and multiplexers

7

<https://youtu.be/rQBABITRJjs>
<https://youtu.be/XktmRzJXFyQ>
<https://youtu.be/hhUKUBwmfo0>
<https://youtu.be/gD7RwCFNxO1>
https://youtu.be/C_nBum2SSIA
<https://youtu.be/BaPPVoZZ-4A>

UNIT-IV Sequential Circuits: Introduction

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II-I D MADHUSUDAN

4.1	Latches -RS latch and JK latch,
4.2	Flip-flops-RS truth table and excitation tables
4.3	JK, T truth table and excitation tables
4.4	D flip flops, truth tables and excitation tables with reset and clear terminals,
4.5	D flip flops with reset and clear terminals.
4.6	Master-slave flip flops,
4.7	Conversion from one flip-flop to another type flip-flop.
4.8	D to RS flip-flop, Jk to D flip-flop
4.9	T to D flip-flop
4.10	JK to T etc.

5

<https://youtu.be/vhIfS10BFCQ>
<https://youtu.be/IsobLzcNeA>
<https://youtu.be/pIoPHzXrcSM>
https://youtu.be/VuvloHU_zUO
<https://youtu.be/IMN14ymh5hY>

Unit-V: Registers and Counters:

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II-I D MADHUSUDAN

5.1	Registers, Shift registers,
5.2	Universal Shift register,
5.3	Ring counter,
5.4	Johnson counter.,
5.5	asynchronous counters,
5.6	synchronous counters,
5.7	Up-Down counter

4

<https://youtu.be/Mb1svXuHaas>
https://youtu.be/zAPcu_f8ERI
<https://youtu.be/XtwRsuFzHxM>
<https://youtu.be/j1ropKhkF5c>

Name of the Subject: Python Programming**UNIT I: Introduction**

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II-I B. Venkatesh

1.1	Introduction: History of Python
1.2	Need of Python Programming
1.3	Applications Basics of Python
1.4	Programming Using the REPL(Shell)
1.5	Running Python Scripts
1.6	Variables, Assignment
1.7	Keywords, Input-Output, Indentation.
1.8	Types, Operators and Expressions: Types - Integers, Strings, Booleans
1.9	Operators- Arithmetic Operators, Comparison (Relational) Operators
1.10	Assignment Operators, Logical Operators
1.11	Bitwise Operators, Membership Operators, Identity Operators
1.12	Expressions and order of evaluations.
1.13	Control Flow- if, if-elif-else
1.14	for, while

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<https://youtu.be/P5NUW0lmAyM>

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II-I B. Venkatesh

2.1	break, continue, pass
2.2	Data Structures Lists - Operations
2.3	Slicing, Methods, Tuples
2.4	Sets, Dictionaries
2.5	Sequences, Comprehensions.
2.6	Functions- Defining Functions
2.7	Calling Functions, Passing Arguments

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<https://youtu.be/PSNUW0lmAyM>

8			2.8	Keyword Arguments, Default Arguments		
9			2.9	Variable-length arguments		
10			2.10	Anonymous Functions, Fruitful Functions		
11			2.11	Scope of the Variables in a Function		
12			2.12	Global and Local Variables		

UNIT III:

1		B. Venkatesh	3.1	Modules- Creating modules	1	https://youtu.be/P5NUW0lmAyM
2			3.2	import statement, from. Import statement		
3			3.3	name spacing		
4			3.4	Python packages-Introduction to PIP		
5			3.5	Installing Packages via PIP		
6			3.6	Using Python Packages		
7			3.7	Object Oriented Programming OOP in Python: Classes		
8			3.8	'self variable', Methods		
9			3.9	Constructor Method		
10			3.10	Inheritance		

UNIT IV:

1		B. Venkatesh	4.1	Inheritance	1	https://youtu.be/P5NUW0lmAyM
2			4.2	Overriding Methods		
3			4.3	Data hiding		
4			4.4	Error and Exceptions: Difference between an Error and Exception		
5			4.5	Handling Exception, try except block		
6			4.6	Raising Exceptions		
7			4.7	User Defined Exceptions		
8			4.8	Multithreading: Understanding threads		
9			4.9	Forking threads synchronizing the threads		
10			4.10	Programming using multithreading		
11			4.11	File Handling: Python File(doc and csv) Operation Reading config files in python		
12			4.12	Writing log files in python		

UNIT V :

1		B. Venkatesh	5.1	Understanding read functions	1	https://youtu.be/P5NUW0lmAyM
2			5.2	Understanding write functions		
3			5.3	Manipulating file pointer using seek, Programming using file operations		
4			5.4	Standard Libraries: Introduction to NumPy and Pandas		

Name of the Subject: Electronic Devices & Circuits

UNIT I: Introduction

1		II-I Mrs.R.Umamaheswari & V.Appala raju	1.1	Open circuited p-n junction, Biased p-n junction	8	https://youtu.be/qRHCJib5sYs https://youtu.be/s54KDnllVg4 https://youtu.be/iosafDXtesQ https://youtu.be/TUmyNKi2l_Q https://youtu.be/QUCEffFWQyAU https://youtu.be/a0M18cVTca4 https://youtu.be/YNovXlm52K8 https://youtu.be/wIKWI7YBs8U https://youtu.be/mzBphnt853g https://youtu.be/QQ-fml0Vhec
2			1.2	P-N junction diode		
3			1.3	Current components in PN junction Diode		
4			1.4	Diode equation, V-I Characteristics		
5			1.5	Diode capacitance		
6			1.6	Energy band diagram of PN junction Diode		
7			1.7	Zener Diode characteristics		
8			1.8	Zener Diode characteristics		

UNIT II

1			2.1	LED, Varactor diode		
2			2.2	Tunnel Diode		

3	Mrs.R.Umamaheswari & V.Appala raju II-I	2.3	SCR, UJT	8	https://youtu.be/JfydJWORT9g https://youtu.be/vCqZ5HYWORE https://youtu.be/-43t_V2dT_w https://youtu.be/eIE3943aqFI https://youtu.be/EW6M0k01heo https://youtu.be/MqN1h09lsW8 https://youtu.be/RHfG0JkmIQc https://youtu.be/QLvEdg0Ay4M
4		2.4	Half wave rectifier		
5		2.5	Full wave rectifier		
6		2.6	Bridge rectifier		
7		2.7	Rectifier circuits-operation- Capacitor filter		
8		2.8	Rectifier circuits-operation- Inductor filter		
9		2.9	Comparison of various filter circuits in terms of ripple factors.		

UNIT III

1	Mrs.R.Umamaheswari & V.Appala raju II-I	3.1	BJT: Junction transistor	5	https://youtu.be/ZFIKXU32o_E https://youtu.be/7YLqATlyri0 https://youtu.be/T12FUT209Aw https://youtu.be/qETdnJxZy3w https://youtu.be/K4bWgKOJ4qw
2		3.2	Transistor current components, transistor configurations		
3		3.3	Transistor as an amplifier, and characteristics of transistor in Common Base		
4		3.4	Transistor as an amplifier, and characteristics of transistor in Common Emitter		
5		3.5	Transistor as an amplifier, and characteristics of transistor in Common Collector configurations		
6		3.6	Punch through/ reach through.		
7		3.7	FET: FET types, construction, operation, characteristics, parameters		
8		3.8	MOSFET-types, construction, operation, characteristics		
9		3.9	Comparison between JFET and MOSFET.		

UNIT IV

1	Mrs.R.Umamaheswari & V.Appala raju II-I	4.1	Transistor Biasing and Thermal Stabilization : Need for biasing, operating point, load line analysis	5	https://youtu.be/ODMX9YZTYo4 https://youtu.be/dQg0J1B_Mug https://youtu.be/30pqf_chmz0 https://youtu.be/WkPzbjqOegQ https://youtu.be/kbkwKEnubSw
2		4.2	BJT biasing- methods, basic stability		
3		4.3	fixed bias Stabilization against variations in V_{BE} , I, and Stability factors, (S,S,S), compensation		
4		4.4	Collector to base bias Stabilization against variations in V_{BE} , I, and Stability factors, (S,S,S), compensation		
5		4.5	Self bias Stabilization against variations in V_{BE} , I, and Stability factors, (S,S,S), compensation		
6		4.6	Thermal runaway, Thermal stability		
7		4.7	Problems on biasing		
8		4.8	Problems on Stabilization		

UNIT V

1	Mrs.R.Umamaheswari & V.Appala raju II-I	5.1	Small Signal Low Frequency Transistor Amplifier Models: BJT: Two port network, Transistor hybrid model, determination of h-parameters	5	https://youtu.be/6_TmEghilLxc https://youtu.be/YKuZvRxwV6o https://youtu.be/NHlgsM18ka8 https://youtu.be/k4XtMGbear0
2		5.2	Generalized analysis of transistor amplifier model using h-parameters, Analysis of CB		
3		5.3	Generalized analysis of transistor amplifier model using h-parameters, Analysis of CE		
4		5.4	Generalized analysis of transistor amplifier model using h-parameters, Analysis of CC		

5		5.5	Approximate analysis of transistor amplifier model using h-parameters, Analysis of CB	https://youtu.be/_9EKsxFdo_M
6		5.6	Approximate analysis of transistor amplifier model using h-parameters, Analysis of CE	
7		5.7	Approximate analysis of transistor amplifier model using h-parameters, Analysis of CC	
8		5.8	Comparison of transistor amplifiers.	

Name of the Subject: Probability and Statistics

UNIT I: Introduction

1	II-I Dr.N.Ramya	1.1	Review on Probability	9 https://youtube.com/playlist?list=PLHBLWUcpUbfJEvIDuflk5WXcopZXfZ BM2
2		1.2	Random experiment, sample space, events,	
3		1.3	Random variable	
4		1.4	Problems on Random variable	
5		1.5	Problems on Random variable	
6		1.6	mathematical expectation and properties	
7		1.7	Moment generating Functions.	
8		1.8	Moment generating Functions.	
9		1.9	Problems on Moment generating Functions.	
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UNIT II:

1	II-I Dr.N.Ramya	2.1	Introduction	9
2		2.2	Binomial (MGF, Mean and Variance)	
3		2.3	Problems on Binomial Distribution	
4		2.4	Poisson distribution (MGF, Mean and Variance)	
5		2.5	Problems on Poisson distributions	
6		2.6	Normal distribution (MGF, area and symmetric properties) properties	
7		2.7	Normal distribution related properties	
8		2.8	Problems on Normal distribution	
9		2.9	Gamma distribution	
10		2.10	Weibull distribution	

UNIT III

1	II-I Dr.N.Ramya	3.1	Introduction to Population and samples	9 https://youtube.com/playlist?list=PLHBLWUcpUbfISwnZdActYhid4a5MtCui
2		3.2	Sampling Techniques	
3		3.3	Problems	
4		3.4	Sampling distribution of mean for large sample (with known and unknown variance),	
5		3.5	Sampling distribution of mean for small samples (with known and unknown variance),	
6		3.6	Sampling distribution of proportion	
7		3.7	Sampling distribution of sums and differences of means and differences	
8		3.8	Point and interval estimators for means (for large and small samples)	
9		3.9	Point and interval estimators for proportions	
10		3.10	Problems	
11		3.11	Maximum error	
12				

UNIT IV

1	II-I Dr.N.Ramya	4.1	Introduction, Null and alternative hypothesis	13	https://youtube.com/playlist?list=PLHBLWUcpUbfK9QY1uvD9z4dPSG8OCDkHa
2		4.2	Type I and Type II errors, one tail, two-tail tests.		
3		4.3	Tests concerning means and their differences using Z-test.		
4		4.4	Problems		
5		4.5	Tests concerning proportions and their differences using Z-test.		
6		4.6	Problems		
7		4.7	Student's t-test		
8		4.8	Problems		
9		4.9	F-test		
10		4.10	χ^2 test of goodness of fit & independence of attributes		
11		4.11	Problems		
12		4.12	Problems		
13		4.13	Problems		

UNIT V

1	II-I Dr.N.Ramya	5.1	Introduction	10	https://youtube.com/playlist?list=PLHBLWUcpUbfJE_P2rYDUG2FpVbSJtAll
2		5.2	simple correlation, regression, applications		
3		5.3	Problems		
4		5.4	Problems		
5		5.5	fitting of straight line		
6		5.6	second degree curves		
7		5.7	exponential curves by method of least squares		
8		5.8	Problems		
9		5.9	Power curves by method of least squares		




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 Information Technology (A)
 Beside: VSEZ, Duvvada, Visakhapatnam-52



DEPARTMENT OF BASIC SCIENCE & HUMANITIES

Digital Content Developed by Faculty during Academic Year 2020-2021

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content	
Name of the Subject: Mathematics-2							
UNIT 1: Solutions of Algebraic and Transcendental Equations							
1	I-I	Dr. M. L. Soujanya	L1	Solving problems using Bisection Method	7	https://youtu.be/Hgk6A6sHYZ8	
2			L2	Solving problems using Regula Falsi Method		https://youtu.be/AuGca7pRL6o	
3			L3	Solving problems using Iteration Method		https://youtu.be/Lu2l1hnnv8k	
4			L4	Solving problems using Newton Raphson Method		https://youtu.be/fslz2NheMmA	
5			L5	Extra problems on four methods		https://youtu.be/VBpCVNtCEnU	
6			L6			https://youtu.be/xOFYPzwrlbE	
7			L7			https://youtu.be/wOQuvxJmUP4	
UNIT 5: Eigen values and Eigen vectors							
1	I-I	Dr. M. P. V. V. Bhaskara Rao	L26	Eigen Values and Eigen Vectors	8	https://youtu.be/QGhCo58JxPY	
2			L27			https://youtu.be/Bkf8Fiba_IU	
3			L28			https://youtu.be/-rHluBKthNw	
4			L29	Cayley – Hamilton Theorem		https://youtu.be/F5qBNO37J2o	
5			L30			https://youtu.be/SF8Z0POqXhg	
6			L31			https://youtu.be/W7ntlisgHE0	
7			L32	Quadratic Form to Canonical Form Conversion		https://youtu.be/_464Xgz-NuQ	
8			L33			https://youtu.be/6Vm7nALCQYk	
UNIT 2: MULTIVARIABLE CALCULUS:							
1	I-I	Dr. M.P.V.V.Bhaskar Rao	L8	Functions of several variables – Limits and continuity	7	https://youtu.be/Ei3JObelung	
2			L9	Partial derivatives – Tangent planes,		https://youtu.be/jhlGuX1GrTg	
3			L10	Linearization and differentials		https://youtu.be/bVrrp022DIY	
4			L11	Total derivative – Chain rule		https://youtu.be/jzw2GEcb54	
5			L12	Jacobian and functional dependence		https://youtu.be/OFInZ9LVAQo	
6			L13	Taylor's expansion for function two variables.			
7			L14	Maclaurin's expansion for function two variables.			
UNIT 3: Matrix decompositions							
1	I-I	Dr. M. P. V. V. Bhaskara Rao	L9	Eigen Values and Eigen Vectors		https://youtu.be/QGhCo58JxPY	
2			L10			https://youtu.be/Bkf8Fiba_IU	
3			L11			https://youtu.be/-rHluBKthNw	
UNIT 4: Cayley-Hamilton theorem and Real Quadratic form							
1	I-I	Dr. M. P. V. V. Bhaskara Rao	L14	Cayley – Hamilton Theorem	5	https://youtu.be/F5qBNO37J2o	
2			L15			https://youtu.be/SF8Z0POqXhg	
3			L16	Quadratic Form to Canonical Form Conversion		https://youtu.be/W7ntlisgHE0	
4			L17			https://youtu.be/_464Xgz-NuQ	
5			L18			https://youtu.be/6Vm7nALCQYk	
Name of the Subject: Linear Algebra							

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content			
UNIT 1: Functions of Complex Variables									
1	II-I	Dr. M. Lakshmi Soujanya	L1	Limit, Continuity, Differentiability and analyticity of a complex function	5	https://youtu.be/VQhxR55QDcl			
2			L2	CR equations in Polar and Cartesian form		https://youtu.be/VQhxR55QDcl			
3			L3	Harmonic Conjugate functions and Construction of Analytic function		https://youtu.be/GCNGYX5eeMA			
4			L4	Milne Thomson's method and problems		http://bit.ly/cvsm_me			
5			L5						
UNIT 2: Complex integrations and Complex power series									
1	II-I	Dr. V. Sree Ramani	L6	Line integral problems	5				
2			L7	Verification of Cauchy's integral theorem					
3			L8	Generalization of Cauchy's formula problems					
4		Dr. S. Sunitha Devi	L9	Taylor's and Maclaurin's series					
5			L10	Laurent Series					
6			L11	Types of singularities					
UNIT 3: Residues and Random Variables									
1	II-I	Dr. S. Sunitha Devi	L12	Residue Theorem problems	7				
2			L13	Residue theorem for improper integrals					
3			L14	Residue theorem for periodic functions					
4			L15	Types of random variables					
5		Mrs. S. Indira	L16	Binomial distribution					
6			L17	Poisson distribution					
7			L18	Normal distribution					
UNIT 4: Sampling distribution and Testing of Hypothesis									
1	II-I	Dr. M. P. V. V. Bhaskara Rao	L19	Sampling distributions, level of significance	7				
2			L20	Confidence limits					
3			L21	Testing of hypothesis introduction					
4			L22	Z-test					
5			L23	t-test					
6			L24	F-test					
7			L25	chi-square test					
UNIT 5: Correlation and Regression									
1	II-I	Dr. K. V. Prasamsa	L26	Karl Pearson's correlation coefficient	4				
2			L27	Spearman's correlation coefficient					
3			L28	Regression, properties					
4			L29	Regression lines					
5			L30	Multiple regression					
Name of the Subject: Linear Algebra									
UNIT 1									
1	I-I	Dr. KGB Santosh Kumari	L5	Interactions	4	https://youtu.be/u9Zg7TkGqyM			
2			L6	Letter and sounds		https://youtu.be/ErRa5e4_XHc			
3			L7			https://youtu.be/CfoeHz1MSPE			
4			L8	Subject verb agreement		https://youtu.be/zqAjcAqr1xU			



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DEPARTMENT OF MASTER OF BUSINESS ADMINISTRATION

Digital Content Developed by Faculty during Academic Year 2020-2021

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
Name of the Subject: Strategic management						
UNIT I: Introduction						
1			L1	Concepts in Strategic Management		
2			L2	Strategic Management as a process		
3			L3	Developing a strategic vision		
4			L4	Developing a strategic mission		
5	II-I	Dr.T.ARCHANA ACHARYA	L5	Developing a strategic objectives ,Goals	9	https://www.youtube.com/playlist?list=PL_7CgGy_BLUXAZXlgZIHV5c_LjIBk3T8T7
6			L6	Developing a strategic policies		
7			L7	Factors that shape a company's strategy		
8			L8	Crafting a strategy		
9			L9	Industry and Competitive Analysis		
UNIT II: Environmental Scanning						
1			L1	Introduction		
2			L2	Methods for Environmental Scanning		
3			L3	SWOT Analysis		
4			L4	Evaluating company resources and competitive capabilities		
5			L5	Strategy and Competitive advantage.		
6	II-I	Dr.T.ARCHANA ACHARYA	L6	Strategies and competitive advantages in diversified companies	11	https://www.youtube.com/playlist?list=PL_7CgGy_BLUXAZXlgZIHV5c_LjIBk3T8T7
7			L7	Evaluation		
8			L8	Strategic Analysis and Choice: Tools and techniques		
9			L9	Strategic Leadership		
10			L10	Developing Human Capital and Social Capital		
6			L11	Balanced Scorecard		
UNIT III:Strategy Formulation						
1			L1	Strategy Formulation		
2			L2	Strategic information systems		
3			L3	Strategy Framework for analyzing competition		
4			L4	Porter's Value Chain Analysis,		
5			L5	Exit and Entry Barriers		
6			L6	Formulation of strategy at Corporate		
7			L7	Formulation of strategy at business		
8	II-I	Dr.T.ARCHANA ACHARYA	L8	Formulation of strategy at functional levels	13	https://www.youtube.com/playlist?list=PL_7CgGy_BLUXAZXlgZIHV5c_LjIBk3T8T7
9			L9	Types of Strategies		
10			L10	Tailoring strategy to fit specific industry		
11			L11	restructuring strategies		
12			L12	diversification strategies		
13			L13	different methods of diversification strategies		
UNIT IV:Strategy Implementation						
1			L1	Global level Strategies		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
2	II-I	Dr.T.ARCHANA ACHARYA	L2	Strategy Implementation	8	https://www.youtube.com/playlist?list=PL_7CgGyBLUXAZXlgZIHV5cLjIBk3T8T7
3			L3	Strategy and Structure		
4			L4	Culture Strategies for competing in Global markets		
5			L5	Leadership Strategies for competing in Global markets		
6			L6	Organizational Values and Their Impact on Strategy		
7			L7	Resource Allocation		
8			L8	Planning systems for implementation		

UNIT V:Strategy Evaluation

1	II-I	Dr.T.ARCHANA ACHARYA	L1	Strategy Evaluation	12	https://www.youtube.com/playlist?list=PL_7CgGyBLUXAZXlgZIHV5cLjIBk3T8T7
2			L2	Strategy control		
3			L3	Establishing strategic controls		
4			L4	Measuring performance		
5			L5	qualitative and quantitative techniques		
6			L6	qualitative and quantitative techniques		
7			L7	Benchmarking performance evaluation Systems		
8			L8	Benchmarking performance evaluation Systems		
9			L9	Problems in measuring performance		
10			L10	Strategic surveillance		
11			L11	strategic audit		
12			L12	Social Audit		

Name of the Subject: Strategic management

UNIT I: Introduction

1	II-I	Dr.T.ARCHANA ACHARYA	L1	Concepts in Strategic Management	9	https://www.youtube.com/playlist?list=PL_7CgGyBLUXAZXlgZIHV5cLjIBk3T8T7
2			L2	Strategic Management as a process		
3			L3	Developing a strategic vision		
4			L4	Developing a strategic mission		
5			L5	Developing a strategic objectives ,Goals		
6			L6	Developing a strategic policies		
7			L7	Factors that shape a company's strategy		
8			L8	Crafting a strategy		
9			L9	Industry and Competitive Analysis		

UNIT II: Environmental Scanning

1	II-I	Dr.T.ARCHANA ACHARYA	L1	Environmental Scanning: Introduction	11	https://www.youtube.com/playlist?list=PL_7CgGyBLUXAZXlgZIHV5cLjIBk3T8T7
2			L2	Methods for Environmental Scanning		
3			L3	SWOT Analysis		
4			L4	Evaluating company resources and competitive capabilities		
5			L5	Strategy and Competitive advantage.		
6			L6	Strategies and competitive advantages in diversified companies		
7			L7	Evaluation		
8			L8	Strategic Analysis and Choice: Tools and techniques		
9			L9	Strategic Leadership		
10			L10	Developing Human Capital and Social Capital		
11			L11	Balanced Scorecard		

UNIT III:Strategy Formulation

1			L1	Strategy Formulation		
2			L2	Strategic information systems		
3			L3	Strategy Framework for analyzing competition		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
4	II-I	Dr.T.ARCHANA ACHARYA	L4	Porter's Value Chain Analysis,	13	https://www.youtube.com/playlist?list=PL7CgGyBLUXAZXlgZIHV5cLjIBk3T8T7
5			L5	Exit and Entry Barriers		
6			L6	Formulation of strategy at Corporate		
7			L7	Formulation of strategy at business		
8			L8	Formulation of strategy at functional levels		
9			L9	Types of Strategies		
10			L10	Tailoring strategy to fit specific industry		
11			L11	restructuring strategies		
12			L12	diversification strategies		
13			L13	different methods of diversification strategies		
UNIT IV:Strategy Implementation						
1	II-I	Dr.T.ARCHANA ACHARYA	L1	Global level Strategies	8	https://www.youtube.com/playlist?list=PL7CgGyBLUXAZXlgZIHV5cLjIBk3T8T7
2			L2	Strategy Implementation		
3			L3	Strategy and Structure		
4			L4	Culture Strategies for competing in Global markets		
5			L5	Leadership Strategies for competing in Global markets		
6			L6	Organizational Values and Their Impact on Strategy		
7			L7	Resource Allocation		
8			L8	Planning systems for implementation		
UNIT V:Strategy Evaluation						
1	II-I	Dr.T.ARCHANA ACHARYA	L1	Strategy Evaluation	12	https://www.youtube.com/playlist?list=PL7CgGyBLUXAZXlgZIHV5cLjIBk3T8T7
2			L2	Strategy control		
3			L3	Establishing strategic controls		
4			L4	Measuring performance		
5			L5	qualitative and quantitative techniques		
6			L6	qualitative and quantitative techniques		
7			L7	Benchmarking performance evaluation Systems		
8			L8	Benchmarking performance evaluation Systems		
9			L9	Problems in measuring performance		
10			L10	Strategic surveillance		
11			L11	strategic audit		
12			L12	Social Audit		

Name of the Subject: Business Ethics and Corporate Governance

UNIT I: Introduction						
1	II-I	N.KANAKA MAHA LAKSHMI	L1	Importance Of Business Ethics:	8	https://www.youtube.com/playlist?list=PLt2RWEERIKoEoxXGk1O7Sj0reOwTIRpC
2			L2	Values And Ethics		
3			L3	Business Ethics And law		
4			L4	Ethics In Work Place		
5			L5	Ethical Decision Making		
6			L6	Theories Of Business ethics		
7			L7	Management And Ethics		
8			L8	Indian Ethical Traditions		
UNIT II: Impact of Globalization						
1	II-I	N.KANAKA MAHA LAKSHMI	L1	Impact Of Globalization On Indian Business Ethics	6	https://www.youtube.com/playlist?list=PLt2RWEERIKoGk0Cd5dp27guW7F5fc545
2			L2	Reasons For Unethical practices Among Indian Companies		
3			L3	Development Of Indian Capital Markets		
4			L4	Various Studies On Ethical Attitudes Of Managers		
5			L5	Advertising And Product Placement And Consumer Autonomy		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content				
6			L6	Major Indian Scams						
UNIT III: HRM and FINANCE										
1	II-I	N.KANAKA MAHA LAKSHMI	L1	Hrm And Finance	11	https://www.youtube.com/playlist?list=PLt2RWEERIKoHhN8c1D0gQCxLszQ0dx0				
2			L2	Product Safety And Pricing						
3			L3	Ethical Responsibility In Product						
4			L4	Advertising And Target Marketing Ethics Of Sales						
5			L5	Advertising And Product Placement And Consumer Autonomy						
6			L6	Ethics In Hrm& Finance						
7			L7	Hr Related Ethical Issues						
8			L8	Institutional Culture						
9			L9	Frauds In banks						
10			L10	Measures Against Bank Frauds						
11			L11	Frauds In Insurance Sector						
UNIT IV: Corporate Governance -An Overview										
1	II-I	N.KANAKA MAHA LAKSHMI	L1	Corporate Governance -An Overview	7	https://www.youtube.com/playlist?list=PLt2RWEERIKoGegN6kitrNVHNdW8LlaVEp				
2			L2	Theory And Practice Of Governance						
3			L3	Indian Model Of Governance						
4			L4	Good Corporate Governance						
5			L5	Land Marks In Emergence Of Governance Oecd						
6			L6	Sarbanes-Oxley Act 2002						
7			L7	Sebi Initiatives						
UNIT V: Role of government in ensuring Corporate Governance										
1	II-I	N.KANAKA MAHA LAKSHMI	1	Role Of Government In Ensuring Corporate Governance	5	https://www.youtube.com/playlist?list=PLt2RWEERIKoHhN8c1D0gQCxLszQ0dx0				
2			L2	Governance Issues Relating To Board Of Directors						
3			L3	Duties And Responsibilities Of Auditors						
4			L4	Governance Under Limited competition						
5			L5	Corporate Governance In Developing Economies						
Name of the Subject: Product Management										
UNIT I: Introduction										
1	II-I	K.V.S.PRAVEENA	L1	Product Concept	10	https://www.youtube.com/playlist?list=PL8fQznBZFWRqA8VJ8d9jvtJ1x-7tlSwih				
2			L2	Product types						
3			L3	Product planning						
4			L4	Strategies of Market leaders						
5			L5	Strategies of Market Challengers						
6			L6	Strategies of Market Followers						
7			L7	Product life Cycle						
8			L8	Product differentiation						
9			L9	Product Portfolio Analysis						
10			L10	Development of product mix						
UNIT II: New product development										
1	II-I	K.V.S.PRAVEENA	L1	New Product Development: Introduction	7	https://www.youtube.com/playlist?list=PL8fQznBZFWRqA8VJ8d9jvtJ1x-7tlSwih				
2			L2	Types of New Product						
3			L3	Organizational system of new product Development						
4			L4	Qualifying new Ideas						
5			L5	Product modification						
6			L6	Designing and managing services						
7			L7	Reasons for failure of new products						
UNIT III: Concept Of Branding										
1			L1	Concept of Branding: Introduction						
2			L2	Traits of Successful Brands						

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
3	II-I	K.V.S.PRAVEENA	L3	Brand Positioning	8	https://www.youtube.com/playlist?list=PL8fQznBZFWRqABVJ8d9jvtJ1x-7tISwhi
4			L4	Anatomy of Brand		
5			L5	Leveraging Brands		
6			L6	Brand equity		
7			L7	Brand extension and Brand Building		
8			L8	Model for Global Brand Building		

UNIT IV: Marketing Organization for New Product

1	II-I	K.V.S.PRAVEENA	L1	Marketing Organization for new product introduction	12	https://www.youtube.com/playlist?list=PL8fQznBZFWRqA8VJ8d9jvtJ1x-7tISwhi
2			L2	Market Testing		
3			L3	Launch Management		
4			L4	Marketing Metrics		
5			L5	Public policy Issues		
6			L6	Product liability		
7			L7	Environmental needs		
8			L8	Sale methods		
9			L9	Brand Repositioning		
10			L10	Channel Management		
11			L11	E-Channels		
12			L12	Customer Relationship Management		

UNIT 5: Packaging : Introduction

1	II-I	K.V.S.PRAVEENA	L1	Packaging: Introduction	8	https://www.youtube.com/playlist?list=PL8fQznBZFWRqA8VJ8d9jvtJ1x-7tISwhi
2			L2	Advantages and Importance of Packaging		
3			L3	Packaging design-labeling		
4			L4	Warrantees and Guarantees		
5			L5	Consumer protection		
6			L6	Product Piracy, Worthy Products		
7			L7	Personal ethics and Residual Issues		
8			L8	Packaging trends in India		

Name of the Subject: Promotion and Distribution Management

UNIT I: Sales Promotion

1	II-I	Mr. U. Rakesh	L1	Sales Display and Types of Sales Displays	11	https://www.youtube.com/playlist?list=PLUokzA-aFFJ1DdJ3bhYqkG13AKtcc0QTX
2			L2	Sales Promotion Objectives and Factors		
3			L3	Tools of Sales Promotion - Sales Promotion Strategies		
4			L4	Concept of Publicity - Public Relations Campaign		
5			L5	Use of Press, Radio and TV - Opinion Building		
6			L6	Customer Service and Community Service		
7			L7	Digital Marketing		
8			L8	Google analytic- Social marketing - Google marketing		

UNIT II : Advertising

1	II-I	Mr. U. Rakesh	L1	Advertising Functions	6	https://www.youtube.com/playlist?list=PLUokzA-aFFJ1DdJ3bhYqkG13AKtcc0QTX
2			L2	Theories of Advertising – AIDA Model		
3			L3	The Starch Model – DAGMAR Model		
4			L4	Theory of Cognitive Dissonance-appraisal		
5			L5	Types of advertisement for consumer, industrial, institutional, retail, trade and professional – I		
6			L6	Types of advertisement for consumer, industrial, institutional, retail, trade and professional – II		
7			L7	Advertisement in marketing mix		
8			L8	Methods in advertisement research		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content				
UNIT III: Marketing channels										
1	II-I	Mr. U. Rakesh	L1	Physical Distribution Management	10	https://www.youtube.com/playlist?list=PLuokzA-aFFJ1DdJ3bhYqkG13AKtcc0QTX				
2			L2	The Concepts of Total Distribution Costs and Cost Trade-offs						
3			L3	Customer Service Standards- From Physical Distribution to Marketing Logistics						
4			L4	Marketing Channels: Nature and Importance of Marketing Channels						
5			L5	Types of Marketing Channels						
6			L6	Emergence of Marketing Channel Structures						
7			L7	Selection of Distribution Channels - Channel Decisions						
8			L8	Distribution analysis, control and management.						
UNIT IV: channel distribution										
1	II-I	Mr. U. Rakesh	L1	Wholesaling	8	https://www.youtube.com/playlist?list=PLuokzA-aFFJ1DdJ3bhYqkG13AKtcc0QTX				
2			L2	Agent Wholesaling Middle Man						
3			L3	Patterns in Wholesaling						
4			L4	Wholesaler Marketing Decision						
5			L5	Changing Patterns						
6			L6	Channel Design Decisions - Channel Design Comparison Factors						
7			L7	Types of Channels						
8			L8	Implementation and Integration of Channel Design - Motivational tools of Distribution channel						
UNIT V: Business Ethics and Sales Management										
1	II-I	Mr. U. Rakesh	L1	Business Ethics and Sales Management	8	https://www.youtube.com/playlist?list=PLuokzA-aFFJ1DdJ3bhYqkG13AKtcc0QTX				
2			L2	Ethical Issues facing Sales Managers						
3			L3	Managing Sales Ethics						
4			L4	Modelling Ethical Behaviour						
5			L5	Making Decisions on Ethical Problems						
6			L6	Building a Sales Ethics Programme						
7			L7	International Distribution						
8			L8	Challenges in Managing an International Distribution Strategy						
Name of the Subject: Investment analysis and portfolio management										
UNIT I: Introduction										
1	II-I	M.SRINU	L1	Concept of Investment Education: Investment Vs Speculation,	10	https://www.youtube.com/playlist?list=PL9mPrmWAnvcHSJlUs32TeID3Ev_RfYGFBE				
2			L2	Investment alternatives						
3			L3	Investment Process						
4			L4	Sources of Investment Information						
5			L5	Financial Markets: Primary market (M1, M2, M3)						
6			L6	Secondary market; Stock Exchange: Meaning, Functions						
7			L7	regulatory structure						
8			L8	Types of stock exchanges						
9			L9	Trading mechanism						
10			L10	Calculation of SENSEX and NIFTY.						
UNIT II: Return and Risk										
1			L1	Return and Risk – Meaning						
2			L2	Measurement of Security Returns.						
3			L3	Risk, Types of risk,						
4			L4	Portfolio risk,						

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
5	II-I	M.SRINU	L5	Evaluation of Risk and return analysis,	9	https://www.youtube.com/playlist?list=PL9mPmWAnvcHTzhZo 3XN5g-Qkc1Bn_HzI
6			L6	Risk Return Trade-off -		
7			L7	Equity and Bond Valuation Models		
8			L8	Valuation of equity and Valuation of Bonds		
9			L9	Bond Pricing Theorems convexity, duration, bond Immunization. (Problems)		

UNIT III: Fundamental Analysis-Economy

1	II-I	M.SRINU	L1	Fundamental Analysis - Economy	5	https://www.youtube.com/playlist?list=PL9mPmWAnvcHS-5-2-nre1apEWKdbWEyek
2			L2	Technical Analysis – Dow Theory		
3			L3	Trends and Trend Reversals		
4			L4	Efficient Market Theory		
5			L5	Hypothesis - Forms of Market Efficiency		

UNIT IV: portfolio management

1	II-I	M.SRINU	L1	Portfolio Management - Introduction	8	https://www.youtube.com/playlist?list=PL9mPmWAnvcHTyEZ-zEh_SeDib3_WtvxR2
2			L2	Elements of Portfolio Management		
3			L3	Portfolio Management Process		
4			L4	Portfolio Models –Markowitz Model		
5			L5	Portfolio Models –Efficient Frontier and Selection of Optimal Portfolio		
6			L6	Sharpe Single Index Model		
7			L7	Capital Asset Pricing Model		
8			L8	Arbitrage Pricing Theory		

UNIT V: Performance Evaluation of Portfolios

1	II-I	M.SRINU	L1	Performance Evaluation of Portfolios - Introduction	4	https://www.youtube.com/playlist?list=PL9mPmWAnvcHQdmJ4Zco!MM6mMtYQxtUGm
2			L2	Sharpe Model		
3			L3	Jensen's Model		
4			L4	Evaluation of Mutual Fund		

Name of the Subject: BANKING AND INSURANCE

Unit I: Introduction to Banking

1	II-I	Dr.Ch.Hari Govinda Rao	L1	Introduction to Indian Financial System	11	https://youtu.be/nmhgU_ouYtw https://youtu.be/HVn3b1_l13o https://youtu.be/XxG0NB3OULA https://youtu.be/WdHQtuETXr8 https://youtu.be/xWo635Ocia8 https://youtu.be/R13_-3lalms https://youtu.be/-HuspJw8-Bg https://youtu.be/GHfIQcCmZ3M https://youtu.be/2ytIDGiveZc https://youtu.be/oWoH6kESGb4 https://youtu.be/HzyAp7d1vuM https://youtu.be/U07pimKKijc
2			L2	Institutional Framework of Indian Finance system		
3			L3	Meaning of bank and banking		
4			L4	Evolution of Banking		
5			L5	Origin, nationalization, Banking Reforms		
6			L6	Indian banking structure		
7			L7	Types of banking		
8			L8	Role and functions of RBI and Federal Bank		
9			L9	Financial Inclusion		
10			L10	Financial Exclusion in India		
11			L11	Role and importance of banks in economic development.		

Unit II: Bank Funds

1			L1	Introduction of Bank Credit, Features of Bank credit		https://youtu.be/mQPbGsZ72lo https://youtu.be/Fjuw6YFnha0
2			L2	Meaning of Lending and Types of Lending		
3			L3	Assessment of credit worthiness of a prospective borrower		
4			L4	Management of credit process, Different types of loans and their features		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content		
5	II-I	Dr.Ch.Hari Govinda Rao	L5	Loan Pricing-pricing fixed & floating rate loans, cost- benefit loan pricing, Customer	10	https://youtu.be/gJLSd2jz_PY https://youtu.be/wSrJglowWSc https://youtu.be/wSrJglowWSc https://youtu.be/-t3_F8Fwtg https://youtu.be/SFdWc1_6JI		
			L6	Financial statement analysis of banks: CAMEL Approach,				
			L7	Key Performance indicators - Profitability Analysis				
			L8	Non-Performing Assets, gross and net concept of NPAs.) causes, implications, Modes of recovery and management of NPAs (Recent issues				
			L9	Legal issues in banking				
			L10					
			UNIT:III Regulation & Innovations in Banking System					
1			L1	Banking regulation in India				
2			L2	Regulation of Bank Capital: The need to Regulate Bank Capital				
3			L3	Concept of Economic Model - Concept of Regulatory Capital				
4			L4	Basel Accords I, II, III and IV				
5			L5	SLR, CRR, and Repo Rate & Reverse Repo rate				
6			L6	New Banking Technologies: Core Banking solutions	10	https://youtu.be/_DcloO8Zfgs https://youtu.be/fZ8UdTRWpMg https://youtu.be/HepA1c0zEzM https://youtu.be/Jk3ICwRuTE0		
7			L7	E-Banking -Features-Advantages - Security aspects of E- Banking-Core concepts of E-Banking				
8			L8	ATM, Debit & Credit Card (Plastic Money), Tele - Banking, CDM, E-Cheque, ECS, EFT, RTGS, NEFT,				
9			L9	IFSC, E-Purse				
10			L10	Crypto currency- Virtual Banking, Net Banking, Mobile Banking & its new trends.				
UNIT: IV Introduction to Insurance								
1	II-I	Dr.Ch.Hari Govinda Rao	L1	Introduction of Insurance as a Risk Management Tool, Principles of Insurance -Characteristics of Insurance contract	6	https://youtu.be/N4fp_pgoDhk https://youtu.be/zn19DysWK6E https://youtu.be/2WiQjaTnYig https://youtu.be/95iVI-se0ew https://youtu.be/xb0Uajlkwas https://youtu.be/gA67k_7GmSg https://youtu.be/vmn2eyxUyCU		
2			L2	Types of Insurance-Functions of Insurers: Production, Underwriting, Rate Making, Managing Claims and Losses				
3			L3	Types of Insurers- Concept of Reinsurance, uses and Advantages				
4			L4	Marketing channels: Role of Agents & brokers				
5			L5	Professionalism, remuneration, responsibilities, classification, criteria for appointment and capital adequacy norms for broker				
6			L6	An Overview of IRDA.				
Unit V: Insurance: Life and General								
1	II-I	Dr.Ch.Hari Govinda Rao	L1	Types of Life Insurance contracts	5	https://youtu.be/tQ9on3FVwyw https://youtu.be/jqOGfqqa_JE https://youtu.be/U1qCNauBcT4 https://youtu.be/DGT9oBpwxM8 https://youtu.be/YlcugDX1HMc		
2			L2	Tax treatment of Life Insurance- Life Insurance Products- Classification of Life Insurance				
3			L3	The Actuarial Science - Provisions of Life Insurance contracts, Special Life Insurance forms				
4			L4	General Insurance -Overview, Types- Medi claims, Third Party Administrators				
5			L5	Micro Insurance in India.				

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
Name of the Subject: Management of Industrial Relations						
Unit I: Industrial Relations Management						
1	II-I	Dr. S.M. Murali Krishna	L1	Industrial Relations Management: Concept- Evaluation	8	https://www.youtube.com/playlist?list=PLKhIhlgsHB_tcdZNQZ9S1p0auNCIJN36
2			L2	Background of industrial Relations in India		
3			L3	Influencing factors of IR in enterprise and the consequences		
4			L4	Economic, Social and Political environments		
5			L5	Employment Structure		
6			L6	Social Partnership		
7			L7	Wider approaches to industrial relations		
8			L8	Labour Market		
Unit II: TradeUnions						
1	II-I	Dr. S.M. Murali Krishna	L1	Introduction-Trade unions- Definition & Objectives	7	https://www.youtube.com/playlist?list=PLKhIhlgsHB_tcdZNQZ9S1p0auNCIJN36
2			L2	Growth of Trade unions in India		
3			L3	Trade union Act -1926 and Legal frame work		
4			L4	Union recognition- Union problems- Employers association introduction- Objectives		
5			L5	Membership-financial status- Quality of Work Life :Workers participation in management		
6			L6	Workers participation in India ,Shop floor, Plant Level, Board level		
7			L7	Collective bargaining-concept- Characteristics-promoting peace.		
UNIT:III Wage and Salary Administartion						
1	II-I	Dr. S.M. Murali Krishna	L1	Wage & Salary Administration: Nature & significance of Wage & salary administration	8	https://www.youtube.com/playlist?list=PLKhIhlgsHB_tcdZNQZ9S1p0auNCIJN36
2			L2	Essentials of minimum wage, Fair Wage, Real wage		
3			L3	Incentives& fringe benefits		
4			L4	Issues and constraints in wage determination in India		
5			L5	Minimum wages Act		
6			L6	Payment of Wages Act		
7			L7	Payment of Bonus Act.		
8			L8	Conduct a survey on Indian wage structure and identify the constraints		
UNIT: IV Social Security						
1	II-I	Dr. S.M. Murali Krishna	L1	Social Security: Introduction & Types	8	https://www.youtube.com/playlist?list=PLKhIhlgsHB_tcdZNQZ9S1p0auNCIJN36
2			L2	Social security in India- Health & Occupational safety programs		
3			L3	Salient features of Workmen Compensation Act and Employees' State Insurance Act		
4			L4	Relating to social security - Employee provident fund Act		
5			L5	Gratuity Act Relating to social security-		
6			L6	Workers Education objectives-		
7			L7	Rewarding		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
8			L8	Apply the concepts of industrial relations and their impact at the personal, organizational and national levels.		

Unit V: Employee Grievance

1	II-I	Dr. S.M. Murali Krishna	L1	Employee Grievance:: Causes of Grievances	8	https://www.youtube.com/playlist?list=PLKhIhlgsHB_tcdZNQZ951p0auNCIJN36
2			L2	Conciliation, Arbitration and Adjudication		
3			L3	procedural aspects for Settlement of Grievances		
4			L4	Standing Orders- Code Discipline		
5			L5	Industrial Disputes: Meaning, nature and scope of industrial disputes		
6			L6	Cases and Consequences of Industrial Disputes		
7			L7	Prevention and Settlement of industrial disputes in India.		
8			L8	Identify the Dispute in a company and how u resolves it.		

Name of the Subject : Compensation and Performance Management

Unit I

1	II-I	Mr.V.Sivajee	L1	Compensation: concept and definition	8	https://youtube.com/playlist?list=PLYvIDS4Crms2CjgEVKXFsaKxkTmzQbSv
2			L2	Objectives and dimensions of compensation program		
3			L3	aligning compensation strategy with business strategy		
4			L4	Concept of reward , non-financial compensation system		
5			L5	Managing Compensation: Designing a compensation system		
6			L6	pay determinants		
7			L7	frame work of compensation policy , influence of pay on employee attitude and behavior		
8			L8	The new trends in compensation management at national and international level.		

Unit II

1	II-I	Mr.V.Sivajee	L1	Wage concepts ,Definition of Wage	7	https://youtube.com/playlist?list=PLuokzA-aFFJ3D4Clpgh6TemMAjzWEzMRI
2			L2	wage theories		
3			L3	Wage differentials		
4			L4	wage incentives in India		
5			L5	recommendations of the National Commission on Labor		
6			L6	fringe benefits		
7			L7	Internal Alignment, Internal Pay Structures		

UNIT:III Wage and Salary Administartion

1	II-I	Mr.V.Sivajee	L1	Wage and Salary administration: Nature and importance	10	https://youtube.com/playlist?list=PLuokzA-
2			L2	Difference between Wage and Salary		
3			L3	wage determination process		
4			L4	methods of wage fixation – wage structure		
5			L5	wage problems – wage administration		
6			L6	economic objectives of wage policy Determination		

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
7			L7	Salary Administration- Types of pay structures		aFFJ3Lt3CUKXIZpMUYaQIS41eL
8			L8	Straight Halsey Premium Bonus Plan, Halsey Weir Premium Plan, Rowan Premium Bonus Plan, Emerson Efficiency Plan		
9			L9	The payment of Wages Act 1936		
10			L10	The Minimum Wages Act 1948		

UNIT: IV

1	II-I	Mr.V.Sivajee	L1	Performance Management: Definition and scope	11	https://youtube.com/playlist?list=PLYViDS4Crms1XXoSWt2NOntb7Iub8JHLH
2			L2	Performance Management System: objectives		
3			L3	Functions of PMS		
4			L4	Performance Management Cycle Importance		
5			L5	Methods and process of PMS		
6			L6	Goal Setting- Linkages to Strategic Planning		
7			L7	Competency mapping		
8			L8	Competency based Performance Management		
9			L9	Reward based Performance Management Systems		
10			L10	Balanced Score Card, EFQM Model		
11			L11	Outcome metrics- EVA; other economic measure		

UNIT : V

1	II-I	Mr.V.Sivajee	L1	Appraising for Recognition & Reward: Purpose of Appraising – appraisal system design	11	https://youtube.com/playlist?list=PLYViDS4Crms3MbZ0VVQYD-9YTfldKZ5gW
2			L2	Methods of appraisal		
3			L3	Implementing the appraisal system		
4			L4	Organizational effectiveness - Performance management skills		
5			L5	Building and leading High performing teams		
6			L6	Performance Monitoring and Counseling		
7			L7	Principles of Monitoring-Monitoring Process		
8			L8	Periodic reviews- Problem solving		
9			L9	Role efficiency- Coaching		
10			L10	Counseling and Monitoring		
11			L11	Performance Audit		

Name of the Subject: Management Science

UNIT I: Introduction

1	II-I	Dr.P.RAMESH	L1	Introduction - Concept –nature and importance of Management	7	https://www.youtube.com/watch?v=kDtLQ5RHkcg
2			L2	Generic Functions of Management – Evolution of Management thought		https://www.youtube.com/watch?v=7-HKK_IMp0M
3			L3	Principles of Management		https://www.youtube.com/watch?v=E5xf7SJWUS0
4			L4	Theories of Motivation (Maslow's, Herzberg and X-Y Theory)		https://www.youtube.com/watch?v=QNOrQuJ8v8
5			L5	Decision making process		https://www.youtube.com/watch?v=SR88KjpO4RE
6			L6	Designing organization structure		
7			L7	Principles of organization		

UNIT II: Plant Location

1			L1	Introduction - Plant location		https://www.youtube.com/watch?v=5EZQnpkkJ10
2			L2	Principles and Types of plant layout		https://www.youtube.com/watch?v=5EZQnpkkJ10

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content			
3	II-I	Dr.P.RAMESH	L3	Production methods (job, batch mass production) – Work study	8	v=wtfmGwuu03k https://www.youtube.com/watch?v=BSaNMnyJeIE			
4			L4	Statistical Quality Control- Control Charts (X Bar chart &R-charts)		v=MpnpoIGo7s https://www.youtube.com/watch?v=7FVmS4lTRo			
5			L5	(P-chart and C-chart) Simple problems		v=AJuesIkRRU https://www.youtube.com/watch?v=L8cHg9telmw			
6			L6	Material Management: Need for Inventory control		v=7FVmS4lTRo https://www.youtube.com/watch?v=7FVmS4lTRo			
7			L7	Tools and techniques of Inventory Control - EOQ		v=L8cHg9telmw https://www.youtube.com/watch?v=L8cHg9telmw			
8			L8	ABC analysis, HML, SDE, VED, and FSN analyses		v=https://www.youtube.com/watch?v=L8cHg9telmw			
UNIT III: Strategic Management									
1	II-I	M.SRINU	L1	Introduction - Vision, Mission, Goals, Strategy – Elements of Corporate Planning Process	6	https://www.youtube.com/playlist?list=PL9mPmWAnvcHS7Lwpxs8EAWhIBpt0aB9qI			
2			L2	Environmental Scanning , SWOT analysis		https://www.youtube.com/playlist?list=PL9mPmWAnvcHS7Lwpxs8EAWhIBpt0aB9qI			
3			L3	Steps in Strategy Formulation and Implementation		https://www.youtube.com/playlist?list=PL9mPmWAnvcHS7Lwpxs8EAWhIBpt0aB9qI			
4			L4	Generic Strategy, Alternatives. Global strategies, theories of Multinational Companies.		https://www.youtube.com/playlist?list=PL9mPmWAnvcHS7Lwpxs8EAWhIBpt0aB9qI			
5			L5	(PERT/CPM): Development of Network		https://www.youtube.com/playlist?list=PL9mPmWAnvcHS7Lwpxs8EAWhIBpt0aB9qI			
6			L6	Difference between PERT and CPM Identifying Critical Path- Probability		https://www.youtube.com/playlist?list=PL9mPmWAnvcHS7Lwpxs8EAWhIBpt0aB9qI			
UNIT IV: HRD,HRM,PMIR concept									
1	II-I	M.SRINU	L1	Introduction - Concept of HRM, HRD and PMIR	7	https://www.youtube.com/playlist?list=PL9mPmWAnvcHSZEVhkVOUaPZsXN2t8JtOW			
2			L2	Functions of HR Manager		https://www.youtube.com/playlist?list=PL9mPmWAnvcHSZEVhkVOUaPZsXN2t8JtOW			
3			L3	Wage payment plans (Problems)		https://www.youtube.com/playlist?list=PL9mPmWAnvcHSZEVhkVOUaPZsXN2t8JtOW			
4			L4	Job Evaluation and Merit Rating		https://www.youtube.com/playlist?list=PL9mPmWAnvcHSZEVhkVOUaPZsXN2t8JtOW			
5			L5	Salient features of The Factories Act 1948		https://www.youtube.com/playlist?list=PL9mPmWAnvcHSZEVhkVOUaPZsXN2t8JtOW			
6			L6	Marketing Management		https://www.youtube.com/playlist?list=PL9mPmWAnvcHSZEVhkVOUaPZsXN2t8JtOW			
7			L7	Marketing Mix strategies – Product, Price, Place and Promotion.		https://www.youtube.com/playlist?list=PL9mPmWAnvcHSZEVhkVOUaPZsXN2t8JtOW			
Unit V: Contemporary Issues									
1	II-I	U.RAKESH	L1	Introduction - Basic concepts of MIS, MRP	7	https://www.youtube.com/playlist?list=PLuokzA-aFFJ0CP6OsygCgtFAcq-5tmafS			
2			L2	Justin- Time(JIT) system, Total Quality Management(TQM)		https://www.youtube.com/playlist?list=PLuokzA-aFFJ0CP6OsygCgtFAcq-5tmafS			
3			L3	Six sigma and Capability Maturity Model(CMM) Levies		https://www.youtube.com/playlist?list=PLuokzA-aFFJ0CP6OsygCgtFAcq-5tmafS			
4			L4	Supply Chain Management ,Enterprise Resource Planning (ERP)		https://www.youtube.com/playlist?list=PLuokzA-aFFJ0CP6OsygCgtFAcq-5tmafS			
5			L5	Business Process outsourcing (BPO)		https://www.youtube.com/playlist?list=PLuokzA-aFFJ0CP6OsygCgtFAcq-5tmafS			
6			L6	Business process Re-engineering and Bench Marking		https://www.youtube.com/playlist?list=PLuokzA-aFFJ0CP6OsygCgtFAcq-5tmafS			
7			L7	Balanced Score Card.		https://www.youtube.com/playlist?list=PLuokzA-aFFJ0CP6OsygCgtFAcq-5tmafS			
Name of the Subject: Managerial Economics and Financial Analysis									
UNIT I: Introduction to Managerial Economics and Demand Analysis									
1	II-I	Auadhati Datta	L1	Introduction of Managerial Economics ,Definitions	8	https://youtu.be/SpqDiWex4Eg			
2			L2	Scope of Managerial Economics		https://youtu.be/KoDJrjfWJg			
3			L3	Managerial Economics and its relation with other subjects		https://youtu.be/_uIABS-ihMc			
4			L4	Concepts of Demand, and its types.		https://youtu.be/rK9PAYQLHMY			
5			L5	Factors Determining Demand, demand schedule ,demand curve		https://youtu.be/iwbZ1tA90fw			
6			L6	Law of Demand and its exceptions		https://youtu.be/4CLqQvc7ud8			

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
7			L7	The concept of Elasticity of Demand & Types of Elasticity of Demand		https://youtu.be/zuGsFgizv3o
8			L8	Techniques of Demand Forecasting		https://youtu.be/vvuABrEXzig

UNIT II: Production and Cost Analysis

1	II-I	Aundhati Datta	L1	Introduction and concept of Production function - Cobb-Douglas and - Leontief production function	8	https://youtu.be/Cb6qA2hcEm4
2			L2	Law of Variable proportions		https://youtu.be/KVsGmhsQkXA
3			L3	ISO Quant's, Isocosts , Least cost combination factors		https://youtu.be/naQ-5FaVAAU
4			L4	Concept of returns to scale		https://youtu.be/gtsE82uyZj0
5			L5	Economies of scale		https://youtu.be/4zhsQnQxSW0
6			L6	The concept of Cost and its different types		https://youtu.be/QEG5YT06M7w
7			L7	The concept of Break Even Analysis with Diagrammatic presentation		https://youtu.be/ucz3TuISW2M
8			L8	Problem on BEP		https://youtu.be/ttCa9mWJ-xE

UNIT III: Introduction to Markets and Business Organisation

1	II-I	Mrs.K.V.S.Praveena	L1	The concept of Market Structures and its classification	10	https://youtu.be/sq5kxEH-DkE
2			L2	Features and Price-Out Put Determination under the Perfect competition		https://youtu.be/3IvSBNouAes
3			L3	Features and Price-Out Put Determination under the Monopoly		https://youtu.be/GdEuNICWNyU
4			L4	Features and Price-Out Put Determination under the Monopolistic competition		https://youtu.be/P8guHKf_uP4
5			L5	Features and Price-Out Put Determination under the Oligopoly		https://youtu.be/xQUWwT7J4Kw
6			L6	Significance of Pricing &Methods of Pricing		https://youtu.be/xFnLMgsawoc
7			L7	Features and evaluation of Sole Trader and Partnership		https://youtu.be/2RIAU7Vbtr4
8			L8	Features and evaluation of Joint Stock Company		
9			L9	Features and evaluation of Public Enterprises		
10			L10	Meaning and features of Business Cycles, Phases of Business Cycle		

UNIT IV: Introduction to Financial Accounting

1	II-I	MR.V.Sivajee	L1	Definition of accounting, Principles of accounting	9	
2			L2	Double Entry System, Rules of Accounting		https://youtu.be/L-4oysoCh2k
3			L3	Journal, Ledger preparation		https://youtu.be/c78hkPUtbhM
4			L4	Trail balance and final accounts		https://youtu.be/Y6rMLphs-QU
5			L5	Model problems		https://youtu.be/eFA8CbNaVu8
6			L6	Model problems		https://youtu.be/UNLRRrG-7IM
7			L7	Model problems		
8			L8	Model problems		
9			L9	Model problems		

UNIT V: Capital and Capital Budgeting Decisions

1	II-I	Dr.P.Sanyasi Rao	L1	Introduction to Capital, Classification of Capital, Time value of money	5	https://youtu.be/qJ7H2R9W_Ck
2			L2	Classification of capital		https://youtu.be/fMHkOoW9g50
3			L3	Traditional Methods (Payback period, Accounting rate of return)		https://youtu.be/nGoDGQVb8co
4			L4	Modern methods (Net Present Value method, Internal Rate of Return Method and Profitability Index Method) (Simple Problems)		https://youtu.be/aLj4f7hFXp4

S. No.	Year-Sem.	Name of the faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
5			L5	Modern methods (Net Present Value method, Internal Rate of Return Method and Profitability Index Method) (Simple Problems)		https://youtu.be/7-Vtf27KhN4 https://youtu.be/4v8bxkbFqwM https://youtu.be/DLykRqHjluk




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DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

Digital Content Developed by Faculty during Academic Year 2020-2021

S. No.	Year-Sem.	Name of the Faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
Name of the Subject: Object Oriented Analysis & Design						
UNIT I: Introduction						
1			L1	Introduction to ooad, design analysis		
2			L2	Ooad concepts class object		
3			L3	Encapsulation, information hiding		
4			L4	Polymorphism, generosity		
5			L5	Importance of modeling, principles of modeling object oriented modeling	7	https://drive.google.com/drive/folders/1SbXfv_foBRMNVFn9fD5x6OEC2hqAZMUc?usp=s_haring
6			L6	Conceptual model of the UML-building blocks-structural things		
7			L7	Common mechanism in the UML		
9			L8	Introduction to Basic structural Modeling, Classes, relationships		
10			L9	Common mechanisms,diagrams		
11			L10	Advanced structural modeling: advanced relationships	8	https://drive.google.com/drive/folders/1SbXfv_foBRMNVFn9fD5x6OEC2hqAZMUc?usp=s_haring
12			L11	Class diagram: Terms, concepts		
13		K.G.Prasanthi	L12	Object diagrams-Terms, concepts		
14			L13	Interfaces, types & roles		
15			L14	Packages, instances		
16			L15	Examples of class daigrams		
17			L16	Sequence diagrams: concepts		
18			L17	Differences between collaboration and sequence diagrams		

S. No.	Year-Sem.	Name of the Faculty	Lecture No.	Topic(s) covered	No. of Videos per unit	Link for digital content
19			L18	Depicting synchronous messages with priority call back mechanism broadcast message	5	https://drive.google.com/drive/folders/1SbXfv_foBRMNVFn9fD5x6OEC2hqAZMUC?usp=sharing
20			L19	Collaboration diagrams: Terms, Concepts		
21			L20	Collaboration diagrams examples		
22			L21	Behavioral Modeling: Interactions		
23			L22	Use cases, use case diagrams		
24			L23	Activity diagrams	5	https://drive.google.com/drive/folders/1SbXfv_foBRMNVFn9fD5x6OEC2hqAZMUC?usp=sharing
25			L24	State machines		
26			L25	Architectural Modeling terms concepts		
27			L26	Architectural Modeling examples		
28			L27	Modeling techniques for component diagrams	4	https://drive.google.com/drive/folders/1SbXfv_foBRMNVFn9fD5x6OEC2hqAZMUC?usp=sharing
29			L28	Modeling techniques for deployment diagrams		

Name of the subject: INTERNET OF THINGS

30	II-I A.Sirisha		L1	Introduction to IoT	3	https://youtu.be/PnCAVmhy-hE
31			L2	Applications of IoT		
32			L3	Characteristics of IoT		
33			L4	Life cycle of IoT		
34			L5	Components of IoT		
35			L6	Technologies of IoT		
36			L7	Business models of IoT	3	https://youtu.be/M06R-3a7t0g
37			L8	IoT in business		
38			L9	Architecture of IoT		
39			L10	Connectivity principles		
40			L11	Message communication principles	4	https://youtu.be/z1KkLAYLzM
41			L12	Protocols of IoT		
42			L13	Data storage in IoT		
43			L14	Analytics of IoT		
44			L15	Mqtt		
45			L16	Http	4	https://youtu.be/SVt_em-vs3s
46			L17	Soap		
47			L18	Building blocks of IoT		
48			L19	Raspberry pi		
49			L20	Actuators		
50			L21	Controllers	4	https://youtu.be/SVt_em-vs3s
51			L22	Automation of IoT		
52			L23	Case studies		

