GODAVARI INSTITUTE OF ENGINEERING & TECHNOLOGY (AUTONOMOUS)

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LESSON PLAN

Name of the Subject: ESTIMATING, SPECIFICATIONS & CONTRACTS		Subject Code: 19110801
Name of the Faculty Member:A.M.N.Kashyap	Regulation: GR-19	Academic Year: 2022-23
Designation:Asst. Professor	Programme: B.Tech	Year/Sem.:IV-II
Department:CIVIL	Branch:CIVIL	Section: -

S.No.	Unit	Name of the Topic / Sub-topic	No. Hours required	Cumulative	Reference
1	I	Syllabus and Subject Introduction	1	1	T1/T2
2		General items of work in Building	1	2	T1/T2
3		General items of work in Building	1	3	T1/T2
4		Standard Units Principles of working out quantities for detailed and abstract estimates	1	4	T1/T2
5		Standard Units Principles of working out quantities for detailed and abstract estimates	1	5	T1/T2
6		Approximate method of Estimating.	2	7	T1/T2
7		Approximate method of Estimating.	2	9	T1/T2
8		Rate Analysis	2	11	T1/T2
9		Rate Analysis	2	13	T1/T2
10		Working out data for various items of work over head and contigent charges.	2	15	T1/T2
11		Working out data for various items of work over head and contigent charges.	2	17	T1/T2
12		Working out data for various items of work over head and contigent charges.	2	19	T1/T2
		Unit – I ; Assignment - I			T1/T2
13	II	Earthwork for roads	1	20	T1/T2
14	...	Earthwork for roads	1	21	T1/T2
15		Earthwork for canals	1	22	T1/T2
16		Earthwork for canals	1	23	T1/T2
....17		Reinforcement bar bending and bar requirement schedules.	2	25	T1/T2
18		Reinforcement bar bending and bar requirement schedules.	2	27	T1/T2
19		Reinforcement bar bending and bar requirement schedules.	2	29	T1/T2
		Unit – II ; Assignment - II.			T1/T2
20	III	Contracts : Introduction	1	30	T1/T2
21		Contracts	1	31	T1/T2
22		Types of contracts	1	32	T1/T2
23		Types of contracts	1	33	T1/T2
24		Contract Documents	1	34	T1/T2
25		Contract Documents	1	35	T1/T2
26		Conditions of contract	1	36	T1/T2
27		Conditions of contract	1	37	T1/T2
28		Valuation of buildings	1	38	T1/T2
29		Valuation of buildings	1	39	T1/T2
30		Standard specifications for different items of building construction	2	41	T1/T2
31		Standard specifications for different items of building construction	2	43	T1/T2
		Unit – III ; Assignment - III			T1/T2
32	IV	Detailed Estimation of Buildings using individual wall method.	2	45	T1/T2
33		Detailed Estimation of Buildings using individual wall method.	2	47	T1/T2

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34		Detailed Estimation of Buildings using individual wall method.	1	48	T1/T2
35		Detailed Estimation of Buildings using individual wall method.	1	49	T1/T2
36		Detailed Estimation of Buildings using individual wall method.	1	50	T1/T2
37		Detailed Estimation of Buildings using individual wall method.	1	51	T1/T2
		Unit – IV ; Assignment - IV			T1/T2
38	V	Detailed Estimation of Buildings using centre line method	2	53	T1/T2
39		Detailed Estimation of Buildings using centre line method	2	55	T1/T2
40		Detailed Estimation of Buildings using centre line method	1	56	T1/T2
41		Detailed Estimation of Buildings using centre line method	1	57	T1/T2
42		Detailed Estimation of Buildings using centre line method	1	58	T1/T2
43		Detailed Estimation of Buildings using centre line method	1	59	T1/T2
		Unit – V ; Assignment - V			

Text Books	Code	Title
1	T1	Estimating and Costing by B.N.Dutta
2	T2	Civil Engineering Contracts and Estimates by B.S.Patil
References	Code	Title / URL (SWAYAM/NPTEL Etc.)
1.	R1	https://nptel.ac.in/courses/105103093

Note: Add/Delete rows as per the requirement.

Prepared and Submitted by

A.M.N.

Sign. of the faculty with date 29/12/22

Verified and Approved by

Sign. of the HoD

Head of the Department
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Laboratory Schedule Plan

Name of the Laboratory: Software Applications in CIVIL ENGINEERING Lab		Course Code: 201CE581
Name of the Faculty Member:J.L.SUDHA	Regulation: R20	Academic Year: 2022-23
Designation:Assistant Professor	Programme: B.TEch	Year/Sem.:III-I
Department:CIVIL	Branch:CIVIL	Section: A & B..

S.No.	Cycle I / II	Title of the Experiment	No. Hours required	Cumulative	Reference
1	I	2-D Frame Analysis and Design	3	3	R1
2	I	Steel Tubular Truss Analysis and Design	3	6	R1
3	I	3-D Frame Analysis and Design	3	9	R1
4	I	Retaining Wall Analysis and Design	3	12	R1
5	I	Simple Tower Analysis and Design	3	15	R1
6	II	Digitization of Map/Toposheet	3	18	R1
7	II	Creation of thematic maps.	3	21	R1
8	II	Estimation of features and interpretation	3	24	R1
9	II	Developing Digital Elevation model	3	27	R1
10	II	Simple applications of GIS in water Resources Engineering & Transportation Engineering	3	30	R1

Lab. Manuals	Code	Title of the Reference
1	R1	Concept and Techniques of GIS' by C.P.L.O. Albert, K.W. Yong, Printice Hall Publishers

References:
GIET Lab Manuals. NRSE bhuvan Applications.
Web-Resources:
www.nptel.com
For QGIS applications youtube channel
https://www.youtube.com/channel/UCHGe8ccP2z2wHQa6B04m4Lg
Webinar on Geoportals: Bhuvan, VEDAS and MOSDAC
https://youtu.be/GjaueiRIEU4

Note: Add/Delete rows as per the requirement.

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Sign. of the faculty with date

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LESSON PLAN

Name of the Subject: POWER QUALITY		**Subject Code:**
Name of the Faculty Member: Mr.B.Prabhakar	**Regulation: R19**	**Academic Year: 2022-23**
Designation: Assistant Professor	**Programme: B.Tech.**	**Year/Sem.: IV-II**
Department: Electrical & Electronics Engineering	**Branch: EEE**	**Section: A&B**

S.No.	Unit	Name of the Topic / Sub-topic	No. Hours required	Cumulative	Reference
1	I	**UNIT-I: Introduction**	1	1	T1
2		Overview of power quality	1	2	T1
3		Concern about the power quality	1	3	T1
4		General classes of power quality	2	5	T1
5		voltage and current quality problems	1	6	T1
6		Transients and its variations	1	7	T1
7		Long–duration and Short–duration	1	8	T1
8		voltage variations &Waveform distortion	1	9	T1
9		Voltage unbalance & fluctuation	1	10	T1
10		Power frequency variations	1	11	T1
11		**ASSIGNMENT-1**	1	12	
12	II	**UNIT II:** Voltage imperfections in power systems - Introducing the unit	1	13	T1/R1
13		Power quality terms	1	14	T1/R1
14		Voltage sags	1	15	T1/R1
15		Voltage swells and interruptions	1	16	T1/R1
16		Sources of voltage sag, swell	1	17	T1/R1
17		Sources of interruptions and Nonlinear loads	1	18	T1/R1
18		IEEE and IEC standards.	1	19	R1
19		Source of transient over voltages	1	20	T1/R1
20		Principles of over voltage protection	1	21	T1/R1
21		Devices for over voltage protection	1	22	T1/R1
22		Utility capacitor switching transients.	2	23	T1/R1
23		**ASSIGNMENT-2**	1	24	
24	III	**UNIT-III: Voltage Regulation and power factor improvement** -Introducing the unit	1	25	T1
25		Principles of regulating the voltage	1	26	T1
26		Device for voltage regulation	1	27	T1
27		Utility voltage regulator application	1	28	T1
28		Capacitor for voltage regulation	1	29	T1
29		End–user capacitor application	1	30	T1
30		Regulating utility voltage with distributed resources	1	31	T1
31		Flicker and importance of Power factor improvement.	2	33	T1
32		Power factor penalty	1	34	T1
33		Static VAR compensations for power factor improvement	2	36	T1

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34		**ASSIGNMENT-3**	1	37	
35	**IV**	**UNIT-IV: Protection** - Introducing the unit	1	38	R2
35		Harmonic distortion and solutions	1	39	R2
36		Voltage distortion vs. Current distortion	1	40	T1/R2
37		Harmonics vs. Transients	1	41	T1/R2
38		indices & Sources of harmonics	1	42	T1/R2
39		Effect of harmonic distortion& Impact of capacitors, transformers, motors and meters	1	43	T1
40		Point of common coupling	1	44	T1
41		Passive and active filtering -Numerical problems.	1	45	
42		**ASSIGNMENT-4**	1	46	
43	**V**	**UNIT-V: Compensation for Power Factor Improvement** -Introducing the unit	1	47	T1
44		Distributed Generation and Power Quality: Resurgence of distributed generation	1	48	T1
45		DG technologies and Interface to the utility system	1	49	T1
46		Power quality issues and operating conflicts	1	50	T1
47		DG on low voltage distribution networks.	1	51	T1
48		PQ Monitoring and Instrumentation	1	52	T1
49		Power quality monitoring and considerations	1	53	T1
50		Historical perspective of PQ measuring instruments	1	54	T1
51		PQ measurement equipment	1	55	T1
52		Assessment of PQ measuring data	1	56	T1
53		Application of intelligent systems	1	57	T1
54		PQ monitoring standards	1	58	T1
55		**ASSIGNMENT-5**	1	59	

Text Books	Code	Title
1	**T1**	"Electrical Power Systems Quality, Dugan R C, McGranaghan M F, Santoso S, and Beaty H W, Second Edition, McGraw–Hill, 2012, 3rd edition
Refer ences	Code	Title / URL (SWAYAM/NPTEL Etc.)
1	**R1**	Understanding Power Quality Problems: Voltage Sags and Interruptions, Bollen M HJ, First Edition, IEEE Press; 2000.
2	**R2**	Power System Harmonics, Arrillaga J and Watson N R, Second Edition, John Wiley & Sons, 2003.
3	**R3**	Harmonics and Power Systems –Franciso C.DE LA Rosa–CRC Press (Taylor & Francis).

Prepared and Submitted by

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DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING
M.TECH LESSON PLAN: Generation And Measurements Of High Voltages

Academic Year	Subject Code	Name of the Subject	Class / Semester	Name of the Faculty / Designation	Total Periods per Semester/ Year		
					Lectures	Tutorials	Practical
2022-23	20221101	GMHV	I/I	Dr. D. Ravi Kishore	3	0	0

Int. Marks	Ext. Marks	Total marks	L	T	P	C
30	70	100	3	0	0	3

UNIT	Lecture No	Topic
1	1	**Electrostatic fields and field stress control**
	2	Electric fields in homogeneous Isotropic materials
	3	Electric fields in multi dielectric media-
	4	Simple configurations
	5	field stress control.
	6	Methods of computing electrostatic fields
	7	conductive analogues
	8	Impedance networks Numerical techniques-
	9	finite difference
	10	method-finite element method
	11	charge simulation method
2	12	**Generation of High AC & DC Voltages:**
	13	Direct Voltages
	14	AC to DC conversion methods
	15	electrostatic generators
	16	Cascaded Voltage Multipliers.
	17	Alternating Voltages
	18	Testing transformers-
	19	Resonant circuits and their applications, Tesla coil.
3	20	**Generation of Impulse Voltages:**
	21	Impulse voltage specifications
	22	Impulse generations circuits-
	23	Operation, construction and design of Impulse generators
	24	Generation of switching and long duration impulses.
	25	Impulse Currents : Generation of High impulse currents
	26	high current pulses.
4	27	**Measurement of High AC & DC Voltages:**
	28	Measurement of High D.C. Voltages:
	29	Series resistance meters, voltage dividers and generating voltmeters.
	30	Measurement of High A.C. Voltages

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	31	Series impedance meters
	32	electrostatic voltmeters
	33	potential transformers and CVTS-voltage dividers and their applications.
5	34	**Measurement of Peak Voltages:**
	35	Sphere gaps, uniform field gaps, rod gaps. Chubb-Fortesque methods.
	36	Passive and active rectifier circuits for voltage dividers. Measurement of Impulse Voltages:
	37	Voltage dividers and impulse measuring systems
	38	generalized voltage measuring circuits-transfer
	39	characteristics of measuring
	40	circuits-L.V. Arms for voltage dividers-compensated dividers.
	41	Measurement of Impulse Currents
	42	Resistive shunts-current transformers-
	43	Hall Generators and Faraday generators
	44	their applications-Impulse Oscilloscopes.

Text Books

1. High Voltage Engineering , E.Kuffel and W.S.Zaengl. Pergaman press Oxford, 1984.
2. High Voltage Engineering, .S.Naidu and V.Kamaraju, Mc Graw-Hill Books Co., New Delhi, 2nd edition, 1995

Reference Books

1. High Voltage Technology,LL Alston, Oxford University Press 1968.
2. High Voltage Measuring Techniques – A. Schwab MIT Press, Cambridge,USA, 1972. Relevant I.S. and IEC Specifications

Signature of H.O.D.
Date: 31/10/22

Signature of the Faculty Member
Date: 31/10/22

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LESSON PLAN

Name of the Subject: Engineering Metrology and Instrumentation		Subject Code: 201ME602
Name of the Faculty Member: SK AVINASH KAPIL & N V S G SASI KIRAN	Regulation: GRBT20	Academic Year: 2022-2023
Designation: Assistant Professor	Programme: B.Tech	Year/Sem.: III/II
Department: Mechanical	Branch: Mechanical	Section: A/B.

S.No.	Unit	Name of the Topic / Sub-topic	No. Hours required	Cumulative	Reference
1	I	**SYSTEMS OF LIMITS AND FITS** Introduction- Limits, fits- Tolerance, Deviations	1	1	T2
2	I	Unilateral And Bilateral tolerance System	1	2	T2
3	I	Hole And Shaft Basis Systems	1	3	T2
4	I	Interchangeability and Selective assembly- international standard system of tolerances	1	4	T2
5	I	Numerical problems -1	1	5	T2
6	I	Numerical problems – 2	1	6	T2
7	I	**LIMIT GAUGES AND GAUGE DESIGN** Taylors principle-design of go and no go gauges	1	7	T2
8	I	plug, ring, snap, gap, taper, profile and position gauges.	1	8	T2
9	I	**COMPARATORS**: Working principle and uses	1	9	T2
10	I	Types- Mechanical, optical, Electrical and electronic, pneumatic comparators	1	10	T2
11	I	TUTORIAL	1	11	
		Unit assignments will be uploaded in google classroom			
12	II	Introduction: Elements of Measurement system, errors, sources	1	12	T2
13	II	Types of errors, calibration and characteristics	1	13	T2
14	II	**LINEAR MEASUREMENTS** Line standards, end standards	1	14	T2
15	II	Slip gauges, Dial indicators	1	15	T2
16	II	Micrometers, Vernier calipers	1	16	T2
17	II	**MEASUREMENT OF ANGLES AND TAPERS** Bevel protractor, angle slip gauges	1	17	T2
18	II	Angle dekkor, Spirit level	1	18	T2
19	II	Sine bar, rollers and spheres used to measure angles and tapers.	1	19	T2
20	II	**FLATNESS MEASUREMENT** Straight edges, Surface Plates,Auto collimator	1	20	T3
21	II	TUTORIAL	1	21	
		Unit assignments will be uploaded in google classroom			
22	III	**SURFACE ROUGHNESS MEASUREMENT** Surface Roughness-Surface Waviness	1	22	T2
23	III	Numerical Assessment Of Surface Finish- CLA, RMS	1	23	T2
24	III	Method Of Measurement Of Surface Finish-Profilograph – Talysurf, ISI Symbols for indication of Surface finish	1	24	T2
25	III	**GEAR MEASUREMENT** Nomenclature Of Gear Tooth, Tooth Thickness With Gear Tooth	1	25	T2
26	III	Vernier And Flange Micrometer, Pitch Measurement, Total Composite Error And Tooth Composite Errors	1	26	T2
27	III	Rolling Gear Tester, Involute Profile Checking	1	27	T2
28	III	**SCREW THREAD MEASUREMENT** Screw Threads-Nomenclature , Elements Of Measurement Errors In Screw Threads Concept Of Virtual EffectiveDiameter- Measurement	1	28	T2
29	III	Measurement Of Effective Diameter B –Two wire and three wire method	1	29	T2
30	III	**MACHINE TOOL ALIGNMENT** Introduction- Machine Tool Alignment Machine ToolAlignment Tests On Lathe	1	30	T3

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31	III	Machine Tool Alignment Test On Milling Machine, Machine Tool Alignment Test On drilling machines	1	31	T3
32	III	TUTORIAL	1	32	
		Unit assignments will be uploaded in google classroom			
33	IV	**MEASUREMENT OF DISPLACEMENT** working principle of transducers, LVDT	1	33	T1
34	IV	Piezo electric,inductive,Capacitance,resistance transducers	1	34	T1
35	IV	**MEASUREMENT OF TEMPERATURE** Classification expansion, electrical resistance - thermistor	1	35	T1
36	IV	Thermocouple – Pyrometers,temperature indicators	1	36	T1
37	IV	**MEASUREMENT OF PRESSURE** Bourdon pressure gauges, Bellows – diaphragm gauges	1	37	T1
38	IV	Low-pressure measurement, Thermal conductivity gauges – ionization pressure gauges, McLeod Gauge	1	38	T1
39	IV	MEASUREMENT OF SPEED: Mechanical tachometers	1	39	T1
40	IV	Electrical tachometers – stroboscope, Noncontact type of tachometer	1	40	T1
41	IV	Measurement of Acceleration and Vibration: Different simple instruments	1	41	T1
42	IV	Principles of seismic instruments – vibrometer and accelerometer using this principle	1	42	T1
43	IV	TUTORIAL	1	43	
		Unit assignments will be uploaded in google classroom			
44	V	**FLOW MEASUREMENT** Rotameter, magnetic, Ultrasonic, Turbine flow meter	1	44	T1
45	V	Hot – wire anemometer, laser Doppler anemometer (LDA)	1	45	T1
46	V	**STRESS STRAIN MEASUREMENTS** Various types ofstress and strain measurements	1	46	T1
47	V	Gauge factor – method of usage of resistance strain gauge for bending compressive and tensile strains	1	47	T1
48	V	Electrical strain gauge ,Usage for measuring torque, Strain gauge rosettes.	1	48	T1
49	V	**MEASUREMENT OF FORCE, TORQUE AND POWER**- Elastic force meters	1	49	T1
50	V	load cells, torsion meters, Dynamometers, Proving ring	1	50	T1
51	V	TUTORIAL	1	51	
		Topics Beyond Syllabus			
52		Tools Maker Microscope	1	52	T1
53		Interferometers	1	53	T1
54		Nanometrology	1	54	T1
		Unit assignments will be uploaded in google classroom			

Text Books	Code	Title
1	T1	**Engineering Metrology and Measurements, N.V. Raghavendra and L. Krishnamurthy, Oxford University press**
2	T2	**Engineering Metrology, R.K Jain, Khanna Publishers, New Delhi.**
3	T3	**Measurement Systems: Applications & design by D.S Kumar.**
References	Code	Title / URL (SWAYAM/NPTEL Etc.)
1	R1	Measurement systems: Application and DesignTata Doeblin Earnest, O.Adaptation, Manik, Dhanesh,McGraw– Hill, New Delhi, Fifth edition, 2007
2	R2	**Metrology (https://nptel.ac.in/courses/112106179)**
3	R3	**Mechanical Instrumentation (https://nptel.ac.in/courses/112107242)**

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Prepared and Submitted by
SK AVINASH KAPIL &
N V S G SASIKIRAN
Sign. of the faculty with date 24/12/22

Verified and Approved by
Sign. of the HoD 27/12/22

Accepted by
Principal / Vice-Principal(Acad.) 10/01/23

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LESSON PLAN

Name of the Subject: ELECTRONIC CIRCUIT ANALYSIS		Subject Code: 201EC411
Name of the Faculty Member: Dr.V.Simhadri, M.Lenin babu	Regulation: GRBT 20	Academic Year: 2022-2023
Designation: Assistant professor	Programme: B.Tech	Year/Sem.:II/IV
Department: ECE	Branch: ECE	Section: A.,B & C

S.No.	Unit	Name of the Topic / Sub-topic	No. Hours required	Cumulative	Reference
1.	I	Classification of Amplifiers	1	1	T2/R1
2.	I	Distortion in amplifiers	1	2	T2/R1
3.	I	Analysis of CE, CC, and CB configurations with the simplified hybrid model	2	4	T2/R1
4.	I	Analysis of CE amplifier with emitter resistance	1	5	T2/R1
5.	I	Analysis of emitter follower	1	6	T2/R1
6.	I	Design of single-stage RC coupled Amplifier using BJT	2	8	T2/R1
7.	I	Analysis of Cascaded RC coupled BJT amplifiers	1	9	T2/R1
8.	I	Cascode Amplifier and Darlington Pair	1	10	T2/R1
9.	I	Different Coupling Schemes used in Amplifiers - RC coupled amplifiers, Transformer Coupled Amplifier and Direct Coupled Amplifier	2	12	T2/R1
10	I	Tutorial class on problem solving	1	13	T2/R1
11	II	Frequency response of BJT Amplifier and its Analysis at low and high frequencies	1	14	T2/R2
12	II	Miller's theorem and its dual	2	16	T2/R2
13	II	Effect of coupling and bypass capacitors	1	17	T2/R2
14	II	The Hybrid pi model - Common Emitter Transistor Model	2	19	T2/R2
15	II	CE Short Circuit current gain and current gain with resistive load	1	20	T2/R2
16	II	Single-stage CE transistor Amplifier Response and Gain - Bandwidth Product	2	22	T2/R2
17	II	Emitter follower at high frequencies	1	23	T2/R2
18	II	Basic Concepts of MOS and MOS Small signal model, Common source amplifier with resistive load.	1	24	T2/R1
19	II	Tutorial class on problem solving	1	25	T2/R1
20	III	Concepts of feedback and Classification of feedback amplifiers	1	26	T1/R2
21	III	General characteristics of negative feedback amplifiers and the Effect of feedback on amplifier characteristics	1	27	T1/R2
22	III	Voltage Series, Voltage Shunt, Current Series,	2	29	T1/R2

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		and Current Shunt Feedback Configurations with Illustrative examples.			
23	III	Classification of oscillators and Conditions for oscillations	1	30	T1/R2
24	III	RC Phase shift Oscillators	2	32	T1/R2
25	III	Generalized analysis of LC Oscillators-Hartley and Colpitts Oscillators	2	34	T1/R2
26	III	Wien Bridge and crystal Oscillators, Stability of Oscillators	2	36	T1/R2
27	III	Tutorial class on problem solving	1	37	T1/R2
28	IV	Classification of power amplifiers and Class A Power amplifiers	1	38	T2/R2
29	IV	Transformer Coupled Class A Audio Power amplifier and Efficiency of class A amplifier	2	40	T2/R2
30	IV	Class B Power amplifier and Efficiency of class B power Amplifier	2	42	T2/R2
31	IV	Class B Push-pull Power Amplifier	2	44	T2/R2
32	IV	Complementary Symmetry Class B Push-Pull Power Amplifier	2	46	T2/R2
33	IV	Distortion of Power Amplifiers, Thermal Stability, and Heat sinks	2	48	T2/R2
34	IV	Tutorial class on problem solving	1	49	T2/R2
35	V	Introduction to tuned amplifiers and Q Factor	2	51	T2/R2
36	V	Classification of small single-tuned amplifiers	1	52	T2/R2
37	V	Single-tuned capacitance coupled amplifier	2	54	T2/R2
38	V	Tapped single-tuned capacitance coupled amplifier	2	56	T2/R2
39	V	Single-tuned inductively coupled amplifier	2	58	T2/R2
40	V	Effect of Cascading Single-tuned Amplifiers on bandwidth.	1	59	T2/R2
41	V	Tutorial class on problem solving	1	60	T2/R2

Text Books	Code	Title
1	T1	Electronic Devices and Circuits Theory-Robert L. Boylestad, Louis Nashelsky (2006), 9th edition, Pearson/Prentice Hall, India.
2	T2	Electronic Devices and Circuits -J.Millman, C.C. Halkias & S.Jit, TMH, 4th Edition,2015.
...	...	
References	Code	Title / URL (SWAYAM/NPTEL Etc.)
1	R1	Integrated Electronics Analog & Digital Circuits and Systems (Jacob Millman, C. Halkies & C.D.Parikh, TMH, 2nd Edition,2010.
2	R2	Microelectronics-Jacob Millman, Arvin Grabel (2003), 2nd edition, Tata McGraw Hill, New Delhi

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28/12/22
Prepared and Submitted by

Milan Rao 28/12/22
Sign. of the faculty with date

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Accepted by

Principal / Vice-Principal(Acad.)

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LESSON PLAN

Name of the Subject: Cloud Computing		Subject Code: 201CS701b
Name of the Faculty Member: Dr. Ashok Koujalagi	Regulation: GRBT20	Academic Year: 2022-2023
Designation: Assistant Professor	Programme: B.Tech	Year/Sem: IV-1
Department: CSE	Branch: CSE	Section: A,B & C

S.No.	Unit	Name of the Topic / Sub-topic	No. Hours required	Cumulative	Reference
1	1	**Systems modeling, Clustering and virtualization**			
2		Scalable Computing over the Internet	1	1	T1
3		Technologies for Network based systems	1	2	. T1..
4		System models for Distributed and Cloud Computing	1	3	T1
5		Software environments for distributed systems and clouds	1	4	T1
6		Performance	1	5	. T1..
7		Security			
8		Energy Efficiency	1	6	T1
9		**Systems modeling, Clustering and virtualization**	1	7	. T1..
10		Scalable Computing over the Internet	1	8	T1
11		Technologies for Network based systems	1	8	. T1..
12		System models for Distributed and Cloud Computing	1	10	T1
13	2	**Virtual Machines and Virtualization of Clusters and Data Centers**			
14		Implementation Levels of Virtualization	1	13	T1
15		Virtualization Structures	1	14	. T1..
16		Tools and mechanisms	1	15	T1
17		Virtualization of CPU	1	16	. T1..
.18		Memory and I/O Devices	1	17	T1
19		Virtual Clusters and Resource Management	1	18	
20		Virtualization for Data Center Automation	1	19	. T1..
21		**Virtual Machines and Virtualization of Clusters and Data Centers**	1	20	T1
22		Implementation Levels of Virtualization	1	21	T1
23		Virtualization Structures	1	22	. T1..
24		Tools and mechanisms	1	23	T1
25		Virtualization of CPU	1	24	. T1..
26		Memory and I/O Devices	1	25	T1
27		Virtual Clusters and Resource Management	1	26	T1
28	3	**Cloud Platform Architecture**			.
29		Cloud Computing and service Models	1	27	T1
30		Architectural Design of Compute and Storage Clouds	1	28	T1
31		Public Cloud Platforms	1	29	. T1..
32		Inter Cloud Resource Management	1	30	T1

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33		Cloud Security and Trust Management	1	31	T1
34	4	Cloud Programming and Software Environments			.
35		Features of Cloud and Grid Platforms	1	34	T1
36		Parallel & Distributed Programming Paradigm	1	35	T1
38		Programming Support of Google App Engine	1	36	. T1..
30		Programming on Amazon AWS and Microsoft Azure	1	37	T1
40		Emerging Cloud Software Environments	1	38	T1
41		Cloud Programming and Software Environments	1	39	T1
42		Features of Cloud and Grid Platforms	1	40	T1
43	5	**Storage Systems:** Evolution of storage technology			.
44		storage models, file systems and database	1	41	T1
45		distributed file systems	1	42	T1
46		general parallel file systems	1	43	. T1..
47		Google file system	1	44	T1
48		Apache Hadoop	1	45	T1
49		Big Table	1	46	T1
50		Megastore, and Amazon Simple Storage Service (S3)	1	47	T1
51		REVISION-1	1	48	

Text Books	Code	Title
1	T1	Distributed and Cloud Computing, Kai Hwang, Geoffry C. Fox, Jack J. Dongarra MK Else
2	T2	Cloud Computing, Theory and Practice, Dan C Marinescu, MK Elsevier.
3	T3	Cloud Computing, A Hands on approach, Arshadeep Bahga, Vijay Madisetti, University Press
References	**Code**	**Title / URL (SWAYAM/NPTEL Etc.)**
1	R1	Cloud Computing, A Practical Approach, Anthony T Velte, Toby J Velte, Robert Elsenpeter, TMH
2	R3	Mastering Cloud Computing, Foundations and Application Programming, Raj Kumar Buyya, Christen vecctiola, S Tammarai selvi, TMH

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LESSON PLAN

Name of the Subject: **Vehicle Maintenance**		Subject Code: 19170766B
Name of the Faculty Member: M.V.Raghavendra Rao	Regulation: GR-19	Academic Year: 2022-2023
Designation: Assistant Professor	Programme: B.Tech.	Year/Sem:IV/I
Department: Automobile Engineering	Branch: AME	Section: A

S.No.	Unit	Name of the Topic / Sub-topic	No. Hours required	Cumulative	Reference
1	I	Maintenance,Workshop Practices	1	1	R2
2	I	Need and Importance of Maintenance	1	2	T2
3	I	Classification of Maintenance	1	3	R1
4	I	Basic Problem Diagnosis	1	4	T2
5	I	Automotive Service Procedure	1	5	R2
6	I	Workshop Operations	1	6	T2
7	I	Machines and Equipment,Fire Safety	1	7	R1
8	I	First aid	1	8	T2
9	I	Basic Tools Required for maintenance	1	9	T2
10	I	Special Service tools,Instruments	1	10	R2
11	I	Assignment-I	1	11	
12	II	Engine and Engine Subsystem Maintenance	1	12	T2
13	II	General Engine Service	1	13	T2
14	II	Dismantling of Engine Components	1	14	R1
15	II	Engine repair	1	15	T1
16	II	Service of basic engin subsystems	1	16	R1
17	II	Cooling and Lubricating systems	1	17	T2
18	II	Fuel system,Intake and Exhaust System	1	18	T2
19	II	Electrical System	1	19	R2
20	II	Electronic fuel injection and engine management service	1	20	T2
21	II	Fault diagnosis-Servicing emission control	1	21	T2
22	II	Assignment-II	1	22	
23	III	Transmission and Driveline Maintenance	1	23	R2
24	III	Clutch-general checks,ajustment and service	1	24	T2
25	III	Dismantling,Identifying	1	25	T2
26	III	Checking and reassembling transmission	1	26	T2
27	III	Transaxle-Road Testing	1	27	R1
28	III	Removing and Replacing Propeller shaft	1	28	T2
29	III	Servicing of cross and yoke joint and constant velocity joints	1	29	R1
30	III	Rear axle service points	1	30	T2
31	III	Removing axle shaft and bearings	1	31	R1
32	III	Servicing differential assemblies-fault diagnosis	1	32	R2
33	III	Assignment-III		33	
34	IV	Steering,Brake,Suspension,Wheel maintenance	1	34	R1
35	IV	Maintenance and service of Steering System	1	35	R2
36	IV	Inspection,Maintenance and Service of brake System	1	36	T2
37	IV	Drum brake,Disc brake,Parking brake	1	37	R2
38	IV	Bleeding of brakes	1	38	T2
39	IV	Inspection,Maintenance and service of Mc person Strut	1	39	R1
40	IV	Coil spring,leaf spring,Shock absorbers	1	40	T2
41	IV	Dismantling and Assembly procedures	1	41	R2

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42	IV	Wheel alignment and balancing	1	42	T1
43	IV	Removing and fitting of tyres,inspection	1	43	T2
44	IV	Assignment-IV	1	44	
45	V	Auto Electrical and Air Conditioning Maintenance	1	45	R1
46	V	Maintenance of batteries,steering system,charging system	1	46	T2
47	V	Fault diagnosis using scan tools	1	47	T1
48	V	Maintenance of air conditioning parts like compressor,condenser,Expansion valve	1	48	R1
49	V	Replacement of hoses	1	49	R2
50	V	Leak detection-Ac Charging	1	50	T2
51	V	Fault diagnosis	1	51	R1
52	V	Vehicle body repair like panel beating	1	52	T2
53	V	Tinkering,Soldering	1	53	T1
54	V	Polishing,Painting	1	54	R1
55	V	Assignment-V	1	55	

Text Books	Code	Title
1	T1	Willam H Crouse and Donald L Anglin "Automotive Meshanics" Tenth Edition,McGraw Hill Publications
2	T2	Ed May, Automotive Mechanics Volume one McGraw Hill Publications
References	Code	Title / URL (SWAYAM/NPTEL Etc.)
1	R1	Bosch Automotive Handbook,Sixth Edition
2	R2	Vehicle service manuals of Manufacturers

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Sign. Of the faculty with date

2/7/22

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LESSON PLAN

Name of the Subject: Mining Geology		Subject Code: 201MM304
Name of the Faculty Member: J. Munneswari Durga	Regulation: GRBT20	Academic Year: 2022-2023
Designation: Assistant Professor	Programme: B.Tech	Year/Sem.: II-I
Department: MINING	Branch: MINING	Section: A

S.No.	Unit	Name of the Topic / Subtopic	No. Hours required	Cumulative	Reference
1.	I	Definition of geology, branches of geology.	1	1	T1
2.		Geological time scale.	2	3	T1
3.		Importance of geology in mining.	1	4	
4.		Interior of the earth, weathering, erosion, denudation.	2	6	T1
5.		Geological process, groundwater origin and occurrence.	1	7	T1
6.		Hydrological cycle.	1	8	T1
7.		Sources of water in mines, Classification of rocks based on porosity and permeability.	1	9	T1
8.		Water table and types of groundwater.	1	10	T1
9.		Geological controls on groundwater movements in mines	1	11	T1
10.		Assignment-I	0	11	
11.	II	Petrology study of rock classification, Stratified rocks and their structures.	1	12	T2
12.		Attitude of beds, Strike and dip.	1	13	T2
13.		Folds and their classification, identification in field, impact on landscape,	2	15	T2
14.		Faults; definition, mechanism of faulting, classification, impact of faulting on topography.	2	17	T2
15.		Unconformities and their types, importance and identification.	1	18	T2
16.	---	Joints; definition, characteristics, classification, differences between joints and faults.	1	19	T1
17.		Assignment-II	0	19	
18.	III	Syngenetic and epigenetic deposits.	1	20	T1
19.		Processes of ore formation	1	21	T1
20.		Magmatic Concentration.	1	22	T1
21.		Sublimation and Contact metasomatism.	1	23	T1
22.		Hydrothermal processes and metamorphism	2	25	T1
23.		Sedimentation and evaporation.	1	26	T1
24.		Residual and mechanical concentration and oxidation and supergene enrichment	1	27	T1
25.		Assignment-III	0	27	
26.	IV	Introduction to estimation of ore reserves- definition	1	28	T1
27.		Classification and importance of different minerals	1	29	T2
28.		Iron, Manganese, Chromite	2	31	T2
29.		Gold, lead, beach sand.	2	33	T2
30.		Copper, Bauxite	2	35	T2
31.		Uranium, quartz, pyroxenes.	2	37	T2
32.		Micas, zinc	2	39	T2

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33.		Aluminum silicates and coal.	2	41	T2
34.		Assignment-IV	0	41	
35.	V	Mineral Prospecting introduction	1	42	T1
36.		Different methods of prospecting for mineral deposits	1	43	T1
37.		Geological Prospecting Methods	1	44	T1
38.		Geophysical Prospecting Methods	1	45	T1
39.		Gravity method	1	46	T1
40.		Magnetic method	1	47	T1
41.		Seismic method	1	48	T1
42.		Electrical method	1	49	T1
43.		Geochemical Method	1	50	T1
44.		Remote sensing and aerial photography.	1	51	T1
45.		Geographic Information System	1	52	T1
46.		Assignment-V	0	52	

Text Books	Code	Title
1	T1	Principles of Engineering Geology. K .M. Bangar.
2	T2	A textbook of Geology. G.B.Mahapatra.

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LESSON PLAN

Name of the Subject: Enhanced Oil Recovery Techniques		**Subject Code**: 20IPT601
Name of the Faculty Member: K. Bala Brahmini	**Regulation**: GRBT20	**Academic Year**: 2022-23
Designation: Assistant Professor	**Programme**: B.Tech	**Year/Sem.**: III/ II
Department: Petroleum Engineering	**Branch**: PE	**Section**: A

S.No	Unit	Name of the Topic/Sub-topic	No. of Hours required	Cumulative	Reference
1	I	Introduction about Enhance oil Recovery	1	1	T1
2		Different Secondary and tertiary oil recovery techniques	1	2	T1
3		Methods to improve the recovery factor at pore scale and macro scale.	1	3	T1
4		Displacement and sweep efficiency.	2	5	T1
5		Assignment	1	6	
6	II	Gas Injection Introduction	1	7	T2
7		Predictive performance	1	8	T2
8		Gas injection in carbonate reservoirs	1	9	T2
9		Inert gas injection, Candidates for gas injection.	1	10	T2
10		Miscible flooding Introduction	1	11	T2
11		Sweep efficiency - High pressure gas injection, Enriched gas drive	2	13	T2
12		LPG slug drive; Predictive technique, Field applications.	2	15	T2
13		Carbon dioxide flooding Process description, Field projects, CO2 sources- problem areas, designing a CO2 flood	2	17	T2
14		Guidelines for selection of miscible CO2 projects, Immiscible CO2 flooding conclusions.	1	18	T2
15		Assignment	1	19	
16	III	polymer flooding Introduction	1	20	T2
17		Polymer products and theory of use, Planning polymer flood projects	2	22	T2
18		Polyacrylamides Introduction	1	23	T2
19		Polyacrylamides chemistry, Application of PAM/AA in enhanced oil recovery	2	25	T2
20		Factors affecting flow in porous media	1	26	T2
21		Field considerations- Site factors, Field operation	1	27	T2
22		Assignment	1	28	
23	IV	Alkaline flooding	1	29	T2
24		Types of caustic used, Entrapment of residue oil, Displacement mechanisms in alkaline flooding.	2	31	T2
25		Crude oil properties, Alkali consumption, pH of injected caustic, Effect of sodium ions and sodium chloride, Effect of divalent ions.	2	33	T2
26		Surfactant flooding Introduction	1	34	T2

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27		Classification of EOR surfactants, Mechanism of oil displacement by surfactant flooding	1	35	T2
28		Ultra low interfacial tension in relation to oil displacement by surfactant flooding, Factors influencing oil recovery.	2	37	T2
29		Surfactant gas flooding for oil recovery, Present status of the use of surfactants in oil recovery.	2	39	T2
30		Assignment	1	40	
31	V	Steam flooding for enhanced oil recovery Introduction	1	41	T2
32		Theory- Screening criteria for steam flood prospects, Reservoir rock and fluid properties, heat losses and formation heating	2	43	T2
33		An overview of steam flood modeling, Parametric studies in steam flooding	1	44	T2
34		Economics of the steam flooding process. Cyclic steam injection - CCS and Steam assisted gravity drainage.	1	45	T2
35		In-situ combustion technology Introduction	1	46	T2
36		Reservoir characteristics, Ignition-Ignition methods, Process In-situ Combustion.	2	48	T2
37		Use of In-situ Combustion, Conclusions, Current status of In-situ Combustion.	2	50	T2
38		Microbial enhanced oil recovery Introduction	1	51	T2
39		Screening criteria for potential microbes, production characteristics and economics.	2	53	T2
40		Assignment	1	54	
41		Revision	1	55	

Text Books	Code	Title
1	T1	Applied Enhanced Oil Recovery, AurelCarcoana, Prentice Hall, 1992.
2	T2	Enhanced Oil Recovery, Larry W. Lake, Prentice Hall, 1998.
References	Code	Title / URL (SWAYAM/NPTEL Etc.)
1	R1	Enhanced Oil Recovery Processes and Operations, E.C. Donaldson, G. V. Chillingarian, T.F. Yew, Elsevier, 1998.
2	R2	Basic Concepts in Enhanced Oil Recovery Processes, Marc Baviere, SCI, 1991.
3	R3	Enhanced Oil Recovery: Proceedings of the Third European Symposium on Enhanced Oil Recovery, F. John Fayers, Elsevier, 1981
4	R4	Fundamentals of Enhanced Oil Recovery, H. R. Van Pollew and Associates, PennWell, 1980.
5	R5	Enhanced Recovery of Residual and Heavy Oil, M. M. Schumacher, Noyes Data Corp., 1980
6	R6	Recent Advances in Enhanced Oil and Gas Recovery, IstvanLaktos, Academy Kiado, 2001
7	R7	Enhanced Oil Recovery, Don W. Greew, G. Paul Willfite, Society of Petroleum Engineers, 1998
8	R8	Enhanced Oil Recovery: Field Planning and Development Strategies, Vladmir Alvarado, Eduardo Marriglee, Gulf Professional Publishing, 2010

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LESSON PLAN

Name of the Subject: INTELECTUAL PROPERTY RIGHTS & PATENTS		Subject Code:
Name of the Faculty Member: Mrs. T.S.VARALAKSHMI	Regulation: GRBT20	Academic Year: 2022-23
Designation: ASSISTANT Professor	Programme: B.Tech.	Year/Sem.: III/II
Department: FED	Branch: AIML	Section:

S.No.	Unit	Name of the Topic / Sub-topic	No. Hours required	Cumulative	Reference
1	I	Introduction to Intellectual Property Rights & Evolutionary past	1	1	T1/R1
2		Intellectual Property Law Basics & Types of Intellectual Property	1	2	T1/R1
3		Innovations and Inventions of Trade related Intellectual Property Rights	1	3	T1/R1
4		Agencies Responsible for Intellectual Property Registration & Infringement - Regulatory	1	4	T1/R1
5		Over use or Misuse of Intellectual Property Rights & Compliance and Liability Issues	1	5	T1/R1
6	II	Introduction to Copyrights & Principles of Copyright	1	6	T1/R1
7		Subject Matters of Copyright & Rights Afforded by Copyright Law	1	7	T1/R1
8		Copyright Ownership & Transfer and Duration	1	8	T1/R1
9		Right to prepare Derivative Works & Rights of Distribution Rights of performers	1	9	T1/R1
10		Copyright Formalities and Registration Limitations & Infringement of Copyright	1	10	T1/R1
11		International Copyright Law & Semiconductor Chip Protection Act.	1	11	T1/R1
12	III	Introduction to Patent Law & Rights and Limitations	1	12	T1/R1
13		Rights under Patent Law, Patent Requirements & Ownership and Transfer	1	13	T1/R1
14		Patent Application Process and Granting of Patent & Patent Infringement and Litigation	1	14	T1/R1
15		International Patent Law - Double Patenting - Patent Searching-Patent Cooperation Treaty	1	15	T1/R1
16		New developments in Patent Law- Invention Developers and Promoters	1	16	T1/R1
17	IV	Introduction to Trade Mark-Trade Mark Registration Process	1	17	T1/R1
18		Post registration procedures Trade Mark maintenance Transfer of rights Inter parties Proceedings	1	18	T1/R1
19		Infringement Dilution of Ownership of Trade Mark Likelihood of confusion	1	19	T1/R1
20		Trade Mark claims Trade Marks Litigation	1	20	T1/R1
21		International Trade Mark Law	1	21	T1/R1
22	V	Introduction to Trade Secrets Maintaining Trade Secret	1	22	T1/R1
23		Physical Security Employee Access Limitation	1	23	T1/R1
24		Employee Confidentiality Agreement	1	24	T1/R1
25		Trade Secret Law - Unfair Competition	1	25	T1/R1
26		Trade Secret Litigation Breach of Contract	1	26	T1/R1
27		Applying State Law Introduction to Cyber Law	1	27	T3/R1
28		Information Technology Act Cyber Crime	1	28	T3/R1

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29		Data Security-Confidentiality Privacy	1	29	T3/R1
30		International aspects of Computer and Online Crime.	1	30	T3/R1

Text Books	Code	Title
1	T1	Deborah E.Bouchoux: "Intellectual Property Cengage learning. New Delhi
2	T2	Kompal Bansal & Parishit Bansal "Fundamentals of IPR for Engineers", BS Publications (Press)
3	T3	Cyber Law, Texts & Cases, South-Western's Special Topics Collections
References	Code	Title / URL (SWAYAM/NPTEL Etc.)
1	R1	Richard Stim "Intellectual Property", Cengage Learning, New Delhi.
2	R2	K. Radha Krishnan, S. Balasubramanian: "Intellectual Property Rights", Excel Delhi

Note: Add/Delete rows as per the requirement.

Prepared and Submitted by
Sign. of the faculty with date
28/12

Verified and Approved by
Sign. of the HoD
28/12

Accepted by
28/12
Principal /Vice-Principal(Acad.)

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LESSON PLAN

Name of the Subject:MACHINE LEARNING		
Name of the Faculty Member:Dr.T.Prabhakara Rao	Regulation:GR-20	Subject Code: 201AI603
Designation: ASSISTANT PROFESSOR	Programme: B Tech	Academic Year: 2022-2023
Department:CSE(AIML & CS)	Branch: CSM	Year/Sem:III-II
		Section: - A

S.No.	Unit	Name of the Topic / Sub-topic	No. Hours required	Cumulative	Reference
1	I	**Introduction to** MACHINE LEARNING	1	1	T1/T2
2	I	Definition and types of Machine learning,	2	3	T1/T2
3	I	Applications,Machine & Learning Process	2	5	T1/T2
4	I	Well posed learning problems	2	7	T1/T2
5	I	Designing aLearning system	2	9	T1/T2
6	I	Perspective and Issues in Machine Learning.	1	10	T1/T2
		At the end of unit,Assignment-1 shall be given			
7	II	**Introduction of Python for Machine Learning**	2	12	T1
8	II	Pandas Data structures Function Application & Mapping Correlation & Covariance,	2	14	T1
9	II	Handling Missing Data, Reading & Writing Data in CSV or text files	2	16	T1
10	II	Data Preparation-Merging and Removing data	2	18	T1
11	II	Data Transformation-Removing Duplicates, Mapping	2	20	T1
		At the end of unit,Assignment-2 shall be given			
12	III	**Concept Learning & Unsupervised Learning**	2	22	T1/T2
13	III	Introduction to Bayes Theorem and Concept learning	2	24	T1/T2
14	III	Naive BayesClassifier,	2	26	T1/T2
15	III	Applications of Naïve Bayes Classifier	2	28	T1/T2
16	III	Clustering –	2	30	T1
17	III	Differenttypes of the clustering technique	2	32	T1
18	III	K-Means Clustering	2	34	T1
		At the end of unit,Assignment-3 shall be given			
19	IV	**Supervised Learning**	2	36	T1
20	IV	Training a model-Linear Regression	2	38	T1
21	IV	Multiple Linear regression	2	40	T1
22	IV	Improvingaccuracy of Linear Regression Model,	2	42	T1
23	IV	Polynomial RegressionModelClassification	2	44	T1
24	IV	Introduction, Decision Tree,	2	46	T1
25	IV	Random Forest Model,	2	48	T1
26	IV	Support Vector Machines, Boosting	2	50	T1
		At the end of unit,Assignment-4 shall be given			
27	V	**Neural Network and Deep Learning**	2	52	T1
38	V	IntroductionArtificial Neural Networks	1	53	T1
29	V	Introduction, Neural Network representation,	1	54	T1
30	V	Back propagation algorithm.	2	56	T1
31	V	**Deep Learning**-Introduction	2	58	T1
32	V	Deep Learning Architectures	2	60	T1
		At the end of unit,Assignment-5 shall be given			

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Text Books	Code	Title
1	T1	Machine Learning ,Tom M. Mitchell, MGH
2	T2	Machine Learning with Python: Design and Develop Machine Learning and Deep Learning, BPB Publishing, India, 2018

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28/12/22

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28/12

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LESSON PLAN

Name of the Subject:Cryptography and Network Security		Subject Code:
Name of the Faculty Member:P KALYAN CHAKRAVARTHY	Regulation:GR-20	Academic Year: 2022-2023
Designation: ASSISTANT PROFESSOR	Programme: B.Tech	Year/Sem.III-II
Department:CSE(AIML&CS)	Branch: CYS	Section: - A

S.No.	Unit	Name of the Topic / Sub-topic	No. Hours required	Cumulative	Reference
1	I	The OSI Security Architecture	1	1	T1/T2
2	I	Security attacks	2	3	T1/T2
3	I	Securityservices & mechanisms	2	5	T1/T2
4	I	Symmetric Cipher Model	2	7	T1/T2
5	I	Substitution Techniques	2	9	T1/T2
6	I	Transportation Techniques	1	10	T1/T2
7	I	Cyber threats and their defense (Phishing Defensive measures, Web based attacks, SQL injection & Defense techniques)	2	12	T1/T2
8	I	Buffer overflow	1	13	T1/T2
9	I	format string vulnerabilities	1	14	T1/T2
		At the end of unit,Assignment-1 shall be given			
10	II	Introduction to Block Ciphers & Symmetric Key Cryptography	2	16	T1
11	II	Traditional Block Cipher Structure	2	18	T1
12	II	DES	2	20	T1
13	II	Block Cipher Design Principles	2	22	T1
14	II	AES-Structure	2	24	T1
15	II	Transformation functions	1	25	T1
16	II	Block Cipher Modes of Operations	1	26	T1
		At the end of unit,Assignment-2 shall be given			
17	III	Principles of public key cryptography algorithms	2	28	T1/T2
18	III	RSA Algorithms	2	30	T1/T2
19	III	Diffie Hellman Key Exchange	2	32	T1/T2
20	III	Elgamal cryptosystem	2	34	T1/T2
21	III	Elliptic Curve Cryptography	2	36	T1
22	III	Cryptographic Hash Functions	2	38	T1
23	III	Application of Cryptographic hash Functions	2	40	T1
24	III	Requirements & Security	2	42	T1
25	III	Secure Hash Algorithm	2	44	T1
26	III	Message Authentication Functions	2	46	T1
27	III	Requirements & Security	1	47	T1
28	III	HMAC & CMAC	1	48	T1
		At the end of unit,Assignment-3 shall be given			
29	IV	Digital Signatures	1	49	T1
30	IV	NIST Digital Signature Algorithm	1	50	T1
31	IV	X.509 Certificate	1	51	T1
32	IV	Key management & distribution	1	52	T1
33	IV	Remote user authentication principles	1	53	T1
34	IV	Kerberos	1	54	T1
35	IV	Network Security: Security issues in web	1	55	T1

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36	IV	Sockets Layer	1	56	T1
37	IV	Transport Layer	1	57	T1
38	IV	HTTPs	1	58	T1
39	IV	Secure Shell	1	59	T1
At the end of unit,Assignment-4 shall be given					
40		IP Security: Overview and its policies	1	60	T1
41		Encapsulating Security Payload	1	61	T1
42		Internet Key exchange and Cryptographic suites	2	63	T1
At the end of unit,Assignment-5 shall be given					

Text Books	Code	Title
1	T1	Cryptography & Network Security: Principles and Practices, William Stallings, PEA, Eighth edition.
2	T2	Introduction to Computer Networks & Cyber Security, ChwanHwa Wu, J.David Irwin, CRC press

Prepared and Submitted by

Sign. of the faculty with date

28/12/22

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Sign. of the HoD

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LESSON PLAN

Name of the Subject: MATHEMATICS-I		Subject Code:201HB101
Name of the Faculty Member: Dr. V. KUSUMA KUMARI Dr. S. SRINIVASA RAJU/Mr. I. SRINIVASA RAO/Mr. B. SESHU KUMAR	Regulation: GRBT-20	Academic Year: 2022-23
Designation: PROFESSOR/ PROFESSOR/ Sr.ASSISTANT PROFESSOR/ ASSISTANT PROFESSOR	Programme: B.Tech.	Year/Sem.: I/ I
Department: Freshmen Engineering Department	Branch: Common to All Branches	Section:

S.No.	Unit	Name of the Topic / Sub-topic	No. Hours required	Cumulative	Reference
1	I	Matrix operations and solving system of Linear Equations: Rank of a matrix by Echelon form.	01	1	T1/R3
2		Solving system of linear homogeneous and non-homogeneous equations, problems.	01	2	T1/R3
3		Gauss elimination method, problems.	01	3	T1/R3
4		Eigen values and Eigen vectors, problems, Properties of Eigen values and Eigen vectors.	01	4	T1/R3
5		Tutorial Class	01	5	T1/R3
6		Cayley-Hamilton Theorem(without proof), problems.	01	6	T1/R3
7		Problems on Cayley-Hamilton Theorem.	01	7	T1/R3
8		Finding inverse and power of a matrix by Cayley-Hamilton Theorem.	01	8	T1/R3
9		Problems on Cayley-Hamilton Theorem.	01	9	T1/R3
10		Tutorial Class	01	10	T1/R3
11	II	Quadratic forms	01	11	T1/R3
12		Finding Quadratic forms and nature of the quadratic forms.	01	12	T1/R3
13		Reduction of quadratic form to canonical form by diagonalisation method.	01	13	T1/R3
14		Reduction of quadratic form to canonical form by orthogonal transformation method.	01	14	T1/R3
15		Problems on Diagonalisation method.	01	15	T1/R3
16		Tutorial Class	01	16	T1/R3
17		Problems on Orthogonal transformation method.	01	17	T1/R3
18		Problems on Orthogonal transformation method.	01	18	T1/R3
19		Problems on Orthogonal transformation method.	01	19	T1/R3
20		Tutorial Class	01	20	T1/R3
21	III	Partial differentiation and Applications: Partial derivatives	01	21	T2/R3
22		Total derivatives	01	22	T2/R3
23		Chain rule, Problems on Chain rule.	01	23	T2/R3
24		Homogeneous functions	01	24	T2/R3
26		Euler's Theorem, Problems on Euler's Theorem.	01	26	T2/R3
27		Change of variables, Problems, Jacobians, Problems.	01	27	T2/R3
28		Tutorial Class	01	28	T2/R3
29		Maxima of functions of two variables	01	29	T2/R3
30		Minima of functions of two variables	01	30	T2/R3
31		Functionally dependence	01	31	T2/R3
32		Jacobians of three variables	01	32	T2/R3
33		Method of Lagranges multipliers	01	33	T2/R3
34		Method of Lagranges multipliers, problems.	01	34	T2/R3
35		Tutorial Class	01	35	T2/R3

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36	IV	Multiple Integrals and Applications: Evaluation of double Integrals	01	36	T1/R2
37		Evaluation of Triple Integrals, Problems.	01	37	T1/R2
38		Change of variables, Problems, Change of order of integration, Problems.	01	38	T1/R2
39		Tutorial Class	01	39	T1/R2
40		Finding Areas, Problems.	01	40	T1/R2
41		Finding Volumes, Problems.	01	41	T1/R2
42		Finding Volumes, Problems.	01	42	T1/R2
43		Tutorial Class	01	43	T1/R2
44	V	Vector Calculus: Scalar point function, Problems	01	44	T1/R3
45		Vector point function, Problems	01	45	T1/R3
46		Curl of a function, Problems	01	46	T1/R3
47		Gradient of a function, Divergence of a function.	01	47	T1/R3
48		Directional derivatives, Irrotational vector, Line integrals, workdone.	01	48	T1/R3
49		Tutorial Class	01	49	T1/R3
50		Green's Theorem, Problems.	01	50	T1/R3
51		Stoke's Theorem, Problems.	01	51	T1/R3
52		Gauss Divergence Theorem, Problems.	01	52	T1/R3
53		Gauss Divergence Theorem, Problems.	01	53	T1/R3
54		Tutorial Class	01	54	T1/R3
55		Revision Class on UNIT-I	01	55	T1/R3
56		Revision Class on UNIT-II	01	56	T1/R3
57		Revision Class on UNIT-III	01	57	T1/R3
58		Revision Class on UNIT-IV	01	58	T1/R3
59		Revision Class on UNIT-V	01	59	T1/R3

Text Books	Code	Title
1	T1	B. S. Grewal, Higher Engineering Mathematics, 44/e, Khanna Publishers, 2017.
2	T2	**Erwin Kreyszig, Advanced Engineering Mathematics, 10/e, John Wiley & Sons, 2011.**
References	Code	Title / URL (SWAYAM/NPTEL Etc.)
1	**R1**	R. K. Jain and S. R. K. Iyengar, Advanced Engineering Mathematics, 3/e, Alpha Science International Ltd., 2002.
2	**R2**	George B.Thomas, Maurice D. Weir and Joel Hass, Thomas Calculus, 13/e, Pearson Publishers, 2013.
3	**R3**	**T. K. V. Iyenger, et.al., Engineering Mathematics, Volume-III, S. Chand Publications, 2018.**
4	**R4**	**Glyn James, Advanced Modern Engineering Mathematics, 4/e, Pearson Publishers, 2015.**

Web Links:
1. https://nptel.ac.in/courses/111105121/
2. https:// nptel.ac.in/courses/111105035/

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Prepared and Submitted by
(Dr. S. SRINIVASA RAJU)
Sign. of the faculty with date

Verified and Approved by
Sign. of the HoD
DEAN
Freshman Engineering Department
Godavari Institute of Engineering & Tech.(A)
Rajahmundry, E.G.Dist.-533296

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GODAVARI INSTITUTE OF ENGINEERING & TECHNOLOGY(Autonomous)
NH-16,CHAITANYA NAGAR,RAJAHMUNDRY - 533294
DEPARTMENT OF MANAGEMENT STUDIES
LESSON PLAN

Name of the Faculty : Dr. PRK Raju Class : II Year

Subject: GLOBAL HUMAN RESOURCE MANAGEMENT Semester : IV Sem

Academic Year : 2022-23

S.NO	UNIT II	TOPIC	Period
1	I	Introduction to Global HRM	2
2		HRM at Global Perspective	1
3		Distinction between Domestic and Global HRM	2
4		HR Challenges at International Level -	1
5		Challenges of Globalization Implications of Managing People and Leveraging Human Resource	2
6	II	Understanding Culture	1
7		Cross Culture Skills and Conflicts	2
8		Managing cross Culture diversities	2
9		Globalization and HR Issues and Concerns	1
10		Cross Cultural Theories	2
11		Cultural Shocks-Dealing with cultural shocks	1
12		Culture and Values-Cultural Training-Cross Cultural Negotiations	1
13	III	Global Talent Acquisition:	1
14		Comparing Domestic and International Recruitment	2
15		Approaches to International Recruitment	1
16		Selection Process-Selection of Expatriates	1
17		Expatriate Management	1
18		Expatriate Training	2
19		Developing Global Managers	1
20		Managing International Assignments methods	2
21		Positioning Expatriate	1
22		Repatriate	1
23		Strategies	2
24		International assignments for women	2
25		Problems	1
26		Diversity Management	1
27	IV	Compensation Management	2
28		International Compensation	1
29		Objectives, Components	2
30		Approaches of Compensation in Global Assignments	1
31		Culture and Compensation	1
32		Globalization Strategic Advantages through HRD	2
33		Measures for creating global HRD Climate	1
34		Strategic Frame Work of HRD and Challenges	2
35		Globalization and Quality of Working Life and Productivity	1

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36		Challenges in Creation of New Jobs through Globalization	2
37		HR interventions and New Corporate Culture	1
38	V	Mergers &Acquisitions	2
39		Importance-Issues	1
40		HR interventions	1
41		Diversity Management	2
42		Right sizing and downsizing-	1
43		Industrial Relations at Global Level	2

TOTAL CLASSES-62

PRS 20/3/23
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LESSON PLAN

Name of the Subject: Problem solving using C & Data Structures		Subject Code: 20300103
Name of the Faculty Member: Mr.L.V.Kiran	Regulation: GRCA-20	Academic Year: 2022-2023
Designation: Assistant Professor	Programme: /MCA	Year/Sem.: I Yr / I Sem
Department: MCA	Branch: MCA	Section: A

S.No.	Unit	Name of the Topic / Sub-topic	No. Hours required	Cumulative	Reference
1	I	Introduction to Programming: Algorithm / Pseudo code	1	1	T1
2	I	Flowchart	1	2	T1
3	I	Program development steps, Computer languages	1	3	T1
4	I	Structure of a C program, identifiers, basic data types and sizes	2	5	T1
5	I	Constants, Variables, Operators	1	6	T1
6	I	Expressions, type conversions	1	7	T1
7	I	Conditional Expressions, precedence and order of evaluation	1	8	T1
8	I	Simple if, If-else, nested if	1	9	T1
9	I	If-else-if ladder, switch statement	1	10	T1
10	I	Loops- while, do-while	1	11	T1
		for loop, break, continue, goto and return statements	1	12	
		Assignment-I			
11	II	Arrays- concepts, declaration, definition, accessing elements	1	13	T1, R1
12	II	Storing elements, 1-D arrays	1	14	T1, R1
13	II	2-D arrays	1	15	T1, R1
14	II	Multidimensional arrays, array applications: Matrix operations	2	17	T1, R1
15	II	Strings and String Manipulations	1	18	T1, R1
16	II	Functions, basics, parameter passing	1	19	T1, R1
17	II	Storage classes, scope rules	1	20	T1, R1
18	II	Functions, basics, parameter passing	1	21	T1, R1
19	II	Storage classes, scope rules	1	22	T1, R1
20	II	User defined functions, standard library functions	1	23	T1, R1
21	II	Recursive functions	1	24	T1, R1
22	II	Header files, C Pre-processor	1	25	T1, R1
		Assignment-II			
23	III	Pointers- concepts, initialization of pointer variables	1	26	T1, R1
24	III	Pointers and function arguments, passing by address	1	27	T1, R1
25	III	Dangling memory, address arithmetic, character pointers	1	28	T1, R1
26	III	Pointers to pointers, pointers and multi-dimensional arrays	1	29	T1, R1
27	III	Dynamic memory management functions, command line arguments	1	30	T1, R1
28	III	Structure	1	31	T1, R1
29	III	Union and enum	1	32	T1, R1
30	III	Concept of a file, text files and binary files, Formatted I/O	1	33	T1, R1
31	III	File I/O operations, example programs	1	34	T1, R1
		Assignment-III			
32	IV	Sorting- selection sort, bubble sort	1	35	T2
33	IV	Insertion sort	1	36	T2
34	IV	Quick sort	1	37	T2
35	IV	Merge sort	1	38	T2
36	IV	Searching-linear and binary search methods	1	39	T2
37	IV	Introduction to Data Structures, abstract data types	1	40	T2
38	IV	Linked list implementation, insertion	1	41	T2
39	IV	Deletion and searching operations on linked list	1	42	T2
40	IV	Stacks-Operations, array representations of stacks	1	43	T2
41	IV	Linked representations of stacks	1	44	T2
42	IV	Stack application-infix to postfix conversion	1	45	T2

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43	IV	Postfix expression evaluation	1	46	T2
		Recursion implementation	1	47	
		Queues-operations, array representations	1	48	
44	IV	Queue-linked representation	1	49	T2
		Assignment-IV			
45	V	Trees – Terminology, Representation of Trees	1	50	T2, R4
46	V	Properties of Binary Trees	1	51	T2, R4
47	V	Binary Tree traversals	1	52	T2, R4
48	V	Max Heap-Definition, Insertion into a Max Heap	1	53	T2, R4
49	V	Deletion from a Max Heap	1	54	T2, R4
50	V	Graphs – Introduction, Definition, Terminology	1	55	T2, R4
51	V	Graph Representations- Adjacency matrix, Adjacency lists	1	56	T2, R4
52	V	Graph traversals- DFS	1	57	T2, R4
53	V	Graph traversals- BFS	1	58	T2, R4
		Assignment-V			

Text Books	Code	Title
1	T1	C Programming, A Problem Solving Approach, Forouzan, Gilberg and Prasad, CENGAGE
2	T2	Data Structures using C, R.Thareja, Oxford University Press
References	Code	Title / URL (SWAYAM/NPTEL Etc.)
1	R1	Programming with C, Bichkar, Universities Press
2	R2	Programming in C, Reema Thareja, OXFORD
3	R3	Fundamentals of Data structures in C, 2nd Edition, E.Horowitz, S.Sahni and Susan Anderson-Freed, Universities Press.
4	R4	Data Structures, S.Lipscutz, Schaum's Outlines, TMH

Prepared and Submitted by

Sign. Of the faculty with date

Verified and Approved by

Sign. Of the HOD

Accepted by

10/01/23

Principal /
Vice-Principal (Acad.)

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DEPARTMENT OF CIVIL ENGINEERING

LESSON PLAN: Sub - Structure Design

Academic Year	Name of the Subject	Class/Semester	Name of the Faculty/Designation	Total Periods per Semester/Year		
				Lectures	Tutorials	Practical
2022-23	Sub - Structure Design	I-I	Dr.D Venkateswarulu	40	-	-

S.No	Topic Covered
1	Soil Exploration Importance, Terminnology
2	Soil Exploration Planning
3	Geophysical Method, Borings
4	Location, Spacing And Depth
5	Methods Of Boring Including Drilling
6	Stabilization Of Bore Holes
7	Boring Records
8	Soil Sampling – Methods Of Soil Sampling
9	Types Of Samples And Samplers
10	Cleaning Of Bore Holes
11	Presevation Of Samples
12	Labeling And Shipment Of Samples
13	Design Consideration Of Open Drive Samples
14	Shallow Foundations – Bearining Capacity
15	General Bearing Capacity Equation
16	Meyerbof's Hansen's And Vesils Bearing Capacity Factors
17	Bearing Capacity Of Stratified Soils
18	Bearing Capacity Based On Penetration Resistance
19	Safe Bearing Capacity
20	Allowble Bearing Pressure
21	Types And Choice Of Type
22	Design Consideration Including Location, Depth
23	Proporationing Of Shallow Foundation
24	Isolated And Combined Footings And Mats
25	Design Procedure Formats
26	Floating Foundations
27	Fundamentals Of Elastic Foundations
28	Pile Foundation – Classification Of Piles
29	Factors Influencing Choice
30	Load Carrying Capacity Of Single Pile Useing Static Pile Formula
31	Á- Â And Y Methods
32	Dynamic Pile Formula – Limitations
33	Monotonic And Cyclic Pile Load Tests

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34	Under Reamed Piles
35	Pile Groups And Efficiency Of Pile Groups
36	Efficiency Of Pile Group – Different Formula
37	Load Carrying Capacity Of Pile Groups In Clay And Sand
38	Settlement Of Pile Groups In Clays
39	Settlement Of Pile Groups In Sands
40	Computation Of Load On Each Pile In A Group

Text Books

T1. Principles of Foundation Engineering by Braja M. Das.
T2. Soil Mechanics in Engineering Practice by Terzagi and Peck
T3. Foundation Design by Wayne C. Teng, John Wiley & Co.,
T4. Foundation Analysis and Design by J.E. Bowles McGraw Hill Publishing Co.,

Reference Books

R1. Analysis and Design of sub structures by Swami Saran
R2.. Design Aids in Soil Mechanics and Foundation Engineering by Shanbaga R. Kaniraj,Tata Mc. Graw Hill.
R3. Foundation Design and Construction by MJ Tomlinson – Longman Scientific
R4. A short course in Foundation Engineering by Simmons and Menzes - ELBS

Signature of the Faculty Member

Signature of H.O.D.

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