K L Deemed to be University
Department of Electronics and Communication Engineering -- KLVZA
Course Handout
2024-2025, Even Sem

Course Title	:BASIC ELECTRICAL AND ELECTRONIC CIRCUITS
Course Code	:23EC1203
L-T-P-S Structure	: 2-0-0-0
Pre-requisite	:
Credits	: 2
Course Coordinator	:Suresh Namgiri
Team of Instructors	:
Teaching Associates	:

Syllabus : Basic circuit elements, Circuit fundamental: Mesh analysis and Nodal analysis, Thevenin's theorem, Norton's theorem, Super position theorem, Maximum power transfer theorem AC fundamentals: RMS value, Average Values, Form & Peak factor, Steady state analysis (R, L, C, etc), Reactance, Impedance, Phase & Phase difference, Real power, Reactive power, Power factor Operation of the diode, Diode as switch, Rectifiers, Clipper, Clampers, Zener Diode as a regulator, Operation of Transistor, Transistor as switch Analog & Digital ICs: Voltage regulators 7805, 7905, and LM723, Operational Amplifiers IC 741, Timer IC 555, Comparators LM 339

Text Books : 1. Electrical Circuit Theory and Technology, John Bird ed6 Routledge publishers Pearson/PHI 2.Electronic Devices and Circuit Theory Robert L. Boylestad 12ed,Mc Graw Hill 3. Circuits and Networks: Analysis and Synthesis A Sudhakar, Shyam Mohan S PallI, ed, TMH 4. Electronic Devices and Circuits David A. Bell, 5ed, PHI

Reference Books :1.ELECTRONIC DEVICES AND CIRCUITS , BY K.LAL KISHORE, BS PUBLICATIONS 2. ELECTRONIC DEVICES AND CIRCUITS BY GSN RAJU , IK INTERNATIONAL, 1. OP-AMPS and linear integrated circuit technology byRAMAKANTH A GAYAKWAD, 4 EDITION PEARSON, PHI.

Web Links :https://youtu.be/7Nh7ISeqn6E https://ocw.mit.edu/courses/6-071j-introduction-to-electronics-signals-and-measurement-spring-2006/9b3b5a9eef65ffb51e8288887a79c2ef_17_diodes1.pdf

Course Rationale : Course Rationale: This course covers fundamental concepts in " Basic Electrical & Electronic Circuits " provides a comprehensive exploration of the foundational principles of basic circuit elements with analysis of passive and active elements, steady state analysis of R, L, C components, significance of various theorems used for the circuit optimization techniques, operation of active elements with applications, various linear analog and digital ICs operation and applications are intended. Students explore the concepts of basic electrical and electronic components and circuit analysis. The curriculum extends to the basic active components like diode and transistor operation, configurations and applications of each active device. fostering a deep understanding of Electronic Devices. Through theoretical knowledge imparted students can do any circuit connections, Voltage-Current (V-I) measurement analysis. Develop the hands-on skill component by design and implementation of any electronic circuits with optimized network analysis concepts. Graduates emerge with a robust skill set, ready to embark on careers in hardware design, optimized circuits, in the field of electronic circuits, equipped to contribute to the ever-evolving landscape of semiconductor Industry.

Course Objectives : The course objectives for "Basic electrical and electronic Circuits" typically include: i. To understand and apply foundational concepts in Basic electrical and electronic Circuits which results in proficiency over designing and analyzing any analog and digital electronic systems. ii. To gain knowledge by applying the concepts for better understanding of electric current, voltage and power, Students are able to understand how to solve multi-loop and multi-node transient behavior containing R, L, and C elements with the basic principles of circuits and circuit analysis using network theorems to simplify the solution. iii. To analyze the basic electronic devices like the diodes and transistors operation as main circuit elements

including their real time applications iv. To apply Linear and Digital ICs principles to solve real-world engineering problems and challenges by reinforcing theoretical knowledge with hands-on experience using Op-amp based circuits, Timers and Voltage regulators and concepts of comparators in real time industrial applications.

COURSE OUTCOMES (COs):

CO NO	Course Outcome (CO)	PO/PSO	Blooms Taxonomy Level (BTL)
CO1	Understand the basic concepts of circuits and its fundamentals	PSO1,PO1	2
CO2	Grasp the principles of AC circuits,including sinusoidal wave forms, impedance, and power factor.	PSO1,PO1	2
CO3	Comprehend the behavior of basic electronic components, such as diodes, transistors.	PSO1,PO1	2
CO4	Understand the basic functional Principles of analog and digital ICs.	PSO1,PO1	2

COURSE OUTCOME INDICATORS (COIs)::

Outcome No.	Highest BTL	COI-1	COI-2
CO1	2	**Btl-2** 1.Basic circuit elements 2. Mesh analysis nodal analysis 3. Thevenin's theorem, 4. Super position theorem Maximum power transfer theorem	**Btl-2** COI-2 1. Circuit fundamental: COI-2 2. Nodal analysis, COI-2 3. Norton's theorem, COI-2 4. Maximum power transfer theorem
CO2	2	**Btl-1** COI-1 1. AC fundamentals:: RMS value, Average Values COI-1 2. Form & Peak factor,	**Btl-2** COI-2 1. Reactance, Impedance, RLc Steady state analysis COI-2 2. Phase & Phase difference , COI-2 3. Real power, Reactive power COI-2 4. Power factor
CO3	2	**Btl-2** COI-1 1. Operation of the diode, COI-1 2. Diode as switch, COI-1 3. Rectifiers (HWR, FWR) COI-1 4. Transistor switch	**Btl-2** COI-2 1. Clippers COI-2 2. Clampers COI-2 3. Zener Diode as a regulator, COI-2 4. Operation of Transistor
CO4	2	**Btl-1** COI-1 Analog & Digital Ics COI-1 Voltage regulators 7805, 7905, COI-1 Timer IC 555 COI-1 applications of timers	**Btl-2** COI-2 Comparators COI-2 Operational Amplifiers IC 741 COI-2 LM723 regulators COI-2 LM 339 comparators

PROGRAM OUTCOMES & PROGRAM SPECIFIC OUTCOMES (POs/PSOs)

Po No.	Program Outcome
PO1	Engineering Knowledge:Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	Problem Analysis: Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences
PO3	Design/Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the

		public health and safety, and the cultural, societal, and environmental considerations
PO4		Conduct Investigations of Complex Problems:Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions for complex problems that cannot be solved by straightforward application of knowledge, theories and techniques applicable to the engineering discipline.
PO5		Modern Tool Usage:Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
PO6		The Engineer and Society:Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7		Environment and Sustainability:Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development
PO8		Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice
PO9		Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10		Communication:Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions
PO11		Project Management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO12		Life-long Learning: Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.
PSO1		An ability to solve Electronics engineering problems, using latest hardware and software tools, to obtain appropriate solutions in the domain of embedded systems and Internet of things.
PSO2		Ability to design web applications by applying the knowledge of cyber security.

Lecture Course DELIVERY Plan:

Sess.No.	CO	COI	Topic	Book No[CH No][Page No]	Teaching-Learning Methods	EvaluationComponents
1	CO1	COI-2	Introduction to BEEC Course, Course Handout, Basic Electrical Circuit elements, Ohms Law, KVL and KCL, Energy Sources	T BOOK [1], CH 2,Page no 7-12	Chalk,PPT,Talk	ALM-CO1,End Semester Exam,Home Assignment,SEM-EXAM1
2	CO2	COI-1	AC Fundamentals, Reactance, Impedance, Phase & Phase difference	T BOOK [1], CH 6,Page no 123	Chalk,PPT,Talk	ALM-CO2,End Semester Exam,Home Assignment,SEM-EXAM1
3	CO1	COI-2	Mesh analysis, Nodal analysis	T BOOK [1], CH 4,Page no 37-41	Chalk,PPT,Talk	ALM-CO1,End Semester Exam,Home Assignment,SEM-EXAM1
4	CO1	COI-2	Thevenin's theorem, Norton's theorem	T BOOK [1],	Chalk,PPT,Talk	ALM-CO1,End Semester Exam,Home

Sess.No.	CO	COI	Topic	Book No[CH No][Page No]	Teaching-Learning Methods	EvaluationComponents
				CH ,4Page 44-45		Assignment,SEM-EXAM1
5	CO1	COI-2	Maximum power transfer theorem Superposition theorem,	T BOOK [1], CH ,4Page 46-55	Chalk,PPT,Talk	ALM-CO1,End Semester Exam,Home Assignment,SEM-EXAM1
6	CO2	COI-1	Impedance, Admitance,Real power, Reactive power, Power factor, Steady state analysis of RLC circuits for DC Sources	T BOOK [1], CH 9Page no 209-216.	Chalk,PPT,Talk	ALM-CO2,End Semester Exam,Home Assignment,SEM-EXAM1
7	CO2	COI-2	Sinusoidal response of RLC Circuit, Series Resonance	T BOOK [1], CH 10,Page no 217-234	Chalk,PPT,Talk	ALM-CO2,End Semester Exam,Home Assignment,SEM-EXAM1
8	CO3	COI-1	Operation of the diode, VI characteristics of diode, Rectifiers (HWR, FWR)	T BOOK [2], CH1-1.6 Pageno 10-17	Chalk,PPT,Talk	ALM-CO3,End Semester Exam,Home Assignment,SEM-EXAM2
9	CO3	COI-1	Clippers, Clampers	T BOOK [2], CH 2,Page no 78-88	Chalk,PPT,Talk	ALM-CO3,End Semester Exam,Home Assignment,SEM-EXAM2
10	CO3	COI-2	Zener Diode as a regulator, Operation of Transistor, Transistor as switch	T BOOK [2], CH 2,Page no 90-105	Chalk,PPT,Talk	ALM-CO3,End Semester Exam,Home Assignment,SEM-EXAM2
11	CO4	COI-1	Analog & Digital ICs	T BOOK[3] Page no453 - 467	Chalk,PPT,Talk	ALM-CO4,End Semester Exam,Home Assignment,SEM-EXAM2
12	CO4	COI-2	Voltage Regulators (LM7805, LM7809, LM723)	T BOOK [3], CH 9,Page 11-33	Chalk,PPT,Talk	ALM-CO4,End Semester Exam,Home Assignment,SEM-EXAM2
13	CO4	COI-2	IC 741, LM339, 555 Timer	T BOOK [3], CH 9, Page No 155-185	PPT,Talk	ALM-CO4,End Semester Exam,Home Assignment,SEM-EXAM2

Lecture Session wise Teaching – Learning Plan

SESSION NUMBER : 1

Session Outcome: 1 Student gets knowledge on basic circuit elements

Session Outcome: 2 student able to optimize any electrical or electronic circuits

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
5	Attendance	1	Talk	--- NOT APPLICABLE ---
25	Introduction to BEEC Course, Course Handout	2	PPT	--- NOT APPLICABLE ---
25	Basic Electrical Circuit elements, Ohms Law, KVL and KCL, Energy Sources	2	PPT	--- NOT APPLICABLE ---
35	Numerical problems on Ohms Law, KVL and KCL	2	Chalk	Problem-Based Learning
10	Summary & Conclusion	2	Talk	--- NOT APPLICABLE ---

SESSION NUMBER : 2

Session Outcome: 1 Students are able to calculate RMS value, Average Values, Form & Peak factor of different signals

Session Outcome: 2 Students are able to calculate the impedance of different circuits

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
5	Attendance	1	Talk	--- NOT APPLICABLE ---
25	AC Fundamentals, RMS value, Average Values, Form & Peak factor	2	PPT	--- NOT APPLICABLE ---
25	AC through R, L and C	2	PPT	--- NOT APPLICABLE ---
35	calculate RMS value, Average Values, Form & Peak factor for HWR, FWR and Square Wave Signals	2	Chalk	One minute paper
10	Summary & Conclusion	2	Talk	--- NOT APPLICABLE ---

SESSION NUMBER : 3

Session Outcome: 1 Students are able to solve different electrical circuits using Mesh Analysis.

Session Outcome: 2 Students are able to solve different electrical circuits using Nodal Analysis.

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
5	Attendance	1	Talk	--- NOT APPLICABLE ---
25	Mesh Analysis	2	PPT	--- NOT APPLICABLE ---
25	Nodal Analysis	2	PPT	--- NOT APPLICABLE ---
35	Numerical problems on Mesh and Nodal Analysis	2	Chalk	Problem-Based Learning
10	Summary & Conclusion	2	Talk	--- NOT APPLICABLE ---

SESSION NUMBER : 4

Session Outcome: 1 Students are able to solve different electrical circuits using Thevenin's Theorem.

Session Outcome: 2 Students are able to solve different electrical circuits using Norton's Theorem.

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
5	Attendance	1	Talk	--- NOT APPLICABLE ---
25	Thevenin's Theorem.	2	PPT	--- NOT APPLICABLE ---
25	Norton's Theorem.	2	PPT	--- NOT APPLICABLE ---
35	Numerical problems on Thevenin's and Norton's Theorems.	2	Chalk	Peer Review
10	Summary & Conclusion	2	Talk	--- NOT APPLICABLE ---

SESSION NUMBER : 5

Session Outcome: 1 Students are able to solve different electrical circuits using Superposition Theorem.

Session Outcome: 2 Students are able to solve different electrical circuits using Maximum Power Transfer Theorem.

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
5	Attendance	1	Talk	--- NOT APPLICABLE

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
				---
25	Superposition Theorem	2	PPT	--- NOT APPLICABLE ---
25	Maximum Power Transfer Theorem	2	PPT	--- NOT APPLICABLE ---
35	Numerical problems on Superposition and Maximum Power Transfer Theorems.	2	Chalk	Problem-Based Learning
10	Summary & Conclusion	2	Talk	--- NOT APPLICABLE ---

SESSION NUMBER : 6

Session Outcome: 1 Students are able to calculate reactance and impedance of a circuit comprising ac sources.

Session Outcome: 2 Students are able to calculate real power, Reactive power of different ac circuits

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
5	Attendance	1	Talk	--- NOT APPLICABLE ---
25	Concept of Real power, Reactive power, Power Factor	2	PPT	--- NOT APPLICABLE ---
25	Steady state analysis of RLC circuits for DC Sources	2	PPT	--- NOT APPLICABLE ---
35	Numerical problems on Real power, Reactive Power Power factor and steady state analysis of RLC circuits	2	Chalk	Group Discussion
10	Summary & Conclusion	2	Talk	--- NOT APPLICABLE ---

SESSION NUMBER : 7

Session Outcome: 1 Student gets knowledge on Resonance in electrical circuit elements

Session Outcome: 2 Students are able to calculate resonance frequency of RLC circuit

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
5	Attendance	1	Talk	--- NOT APPLICABLE ---
25	Concept of Resonance in elecrical circuit	2	PPT	--- NOT APPLICABLE ---

25	Series Resonance	2	PPT	Video synthesis
35	Numerical problems on Series Resonance	2	Chalk	--- NOT APPLICABLE ---
10	Summary & Conclusion	2	Talk	--- NOT APPLICABLE ---

SESSION NUMBER : 8

Session Outcome: 1 Students able to know the concept of PN diode

Session Outcome: 2 Students able to know applications of diodes as rectifiers

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
5	Attendance	1	Talk	--- NOT APPLICABLE ---
25	Diode operation, VI charcateristics,	2	PPT	--- NOT APPLICABLE ---
25	HWR,FWR and Bridge Rectifiers	2	PPT	In-class Demonstrations
35	Numerical problems on rectifiers	2	Chalk	--- NOT APPLICABLE ---
10	Summary & Conclusion	2	Talk	--- NOT APPLICABLE ---

SESSION NUMBER : 9

Session Outcome: 1 Student gets knowledge on Wave shaping circuits

Session Outcome: 2 Students able to know applications of diodes as Clippers and Clampers

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
5	Attendance	1	Talk	--- NOT APPLICABLE ---
25	Introduction to wave shaping circuits.	2	PPT	--- NOT APPLICABLE ---
25	Clippers and Clampers operation.	2	PPT	--- NOT APPLICABLE ---
35	Sketching of output waveforms of different clippers and clampers	2	Chalk	Sketching & Drawing

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
10	Summary & Conclusion	2	Talk	--- NOT APPLICABLE ---

SESSION NUMBER : 10

Session Outcome: 1 Student gets knowledge on how zener diode working as voltage regulator

Session Outcome: 2 Student gets knowledge on transistor working

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
5	Attendance	1	Talk	--- NOT APPLICABLE ---
25	Zener diode operation and V-I characteristics,Zener diode voltge regulator	2	PPT	--- NOT APPLICABLE ---
25	Operation of transistor, transistor as amplifier, transistor as switch	2	PPT	--- NOT APPLICABLE ---
35	Numerical problems on zener diode voltge regulator	2	Chalk	Problem-Based Learning
10	Summary & Conclusion	2	Talk	--- NOT APPLICABLE ---

SESSION NUMBER : 11

Session Outcome: 1 Student gets knowledge on analog and digital ICs pin configuration.

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
5	Attendance	1	Talk	--- NOT APPLICABLE ---
25	Introduction to analog and digital ICs, pin configutation	2	PPT	--- NOT APPLICABLE ---
30	Applications of analog and digital ICs	2	PPT	Video synthesis
30	Different types of Voltage regulators(LM78XX, LM79XX and LM723)	2	Chalk	--- NOT APPLICABLE ---
10	Summary & Conclusion	2	Talk	--- NOT APPLICABLE ---

SESSION NUMBER : 12

Session Outcome: 1 Student gets knowledge on different IC voltage regulators

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
5	Attendance	1	Talk	--- NOT APPLICABLE ---
30	working of fixed IC voltage regulators	2	PPT	--- NOT APPLICABLE ---
30	working of variable IC voltage regulators	2	PPT	--- NOT APPLICABLE ---
25	Practical circuits using fixed and variable IC regulators	2	Chalk	Video synthesis
10	Summary & Conclusion	2	Talk	--- NOT APPLICABLE ---

SESSION NUMBER : 13

Session Outcome: 1 Students gets the knowledge on IC 741 OPAMPs

Session Outcome: 2 Students gets the knowledge on LM339 Comparator

Session Outcome: 3 Students gets the knowledge on 555 Timer

Time(min)	Topic	BTL	Teaching-Learning Methods	Active Learning Methods
5	Attendance	1	Talk	--- NOT APPLICABLE ---
30	IC 741 pin configuration, electrical characteristics and applications	2	PPT	Video synthesis
30	LM339 pin configuration, electrical characteristics and applications	2	PPT	--- NOT APPLICABLE ---
25	555 Timer pin configuration, electrical characteristics and applications	2	PPT	--- NOT APPLICABLE ---
10	Summary & Conclusion	2	Talk	--- NOT APPLICABLE ---

Tutorial Course DELIVERY Plan: NO Delivery Plan Exists

Tutorial Session wise Teaching – Learning Plan

No Session Plans Exists

Practical Course DELIVERY Plan: NO Delivery Plan Exists

Practical Session wise Teaching – Learning Plan

No Session Plans Exists

Skilling Course DELIVERY Plan: NO Delivery Plan Exists

Skilling Session wise Teaching – Learning Plan

No Session Plans Exists

WEEKLY HOMEWORK ASSIGNMENTS/ PROBLEM SETS/OPEN ENDEDED PROBLEM-SOLVING EXERCISES etc:

Week	Assignment Type	Assignment No	Topic	Details	co
1	Weekly Homework Assignments	1	Ohm's Law, KVL and KCL	Problems based on applications of Ohm's Law and Kirchoff's laws	CO1
2	Weekly Homework Assignments	2	AC fundamentals	Calculation of Average and RMS values of different waveforms used real time applications	CO2
10	Weekly Homework Assignments	5	Zener Diode applications	Zener diode voltage regulator for specific load voltage and load current	CO3
12	Weekly Homework Assignments	6	Fixed and Variable Voltage Regulators	Sketches of different voltage regulators using LM78XX and LM79XX ICs for different load voltages	CO4
3	Problem Sets	3	Mesh, Nodal Analysis	Calculation current, voltage and power in a complex circuit using Mesh and Nodal Analysis methods,	CO1
6	Problem Sets	4	Resonance	Calculation of Resonant frequency of a RLC circuit	CO2

COURSE TIME TABLE:

	Hour	1	2	3	4	5	6	7	8	9
Day	Component									
Mon	Theory	V-S45,V-S46,V-S47,V-S48	V-S45,V-S46,V-S47,V-S48	---	---	---	---	---	---	V-S53,V-S54,V-S55,V-S56
	Tutorial	--	--	---	---	---	---	---	---	--
	Lab	--	--	---	---	---	---	---	---	--
	Skilling	--	--	---	---	---	---	---	---	--

Day	Type									
Tue	Theory	V-S9,V-S10,V-S11,V-S12	V-S9,V-S10,V-S11,V-S12	V-S33,V-S34,V-S35,V-S36	V-S33,V-S34,V-S35,V-S36	V-S1,V-S2,V-S3,V-S4	V-S1,V-S2,V-S3,V-S4	- - - -	- - - -	---
	Tutorial	--	--	--	--	--	--	- - - -	- - - -	---
	Lab	--	--	--	--	--	--	- - - -	- - - -	---
	Skilling	--	--	--	--	--	--	- - - -	- - - -	---
Wed	Theory	---	---	V-S37,V-S38,V-S39,V-S40	V-S37,V-S38,V-S39,V-S40	V-S17,V-S18,V-S19,V-S20	V-S17,V-S18,V-S19,V-S20	- - - -	- - - -	---
	Tutorial	---	---	--	--	--	--	- - - -	- - - -	---
	Lab	---	---	--	--	--	--	- - - -	- - - -	---
	Skilling	---	---	--	--	--	--	- - - -	- - - -	---
Thu	Theory	V-S49,V-S50,V-S51,V-S52	V-S49,V-S50,V-S51,V-S52	---	---	---	---	- - - -	- - - -	---
	Tutorial	--	--	---	---	---	---	- - - -	- - - -	---
	Lab	--	--	---	---	---	---	- - - -	- - - -	---
	Skilling	--	--	---	---	---	---	- - - -	- - - -	---
Fri	Theory	V-S5,V-S6,V-S7,V-S8	V-S5,V-S6,V-S7,V-S8	---	---	V-S21,V-S22,V-S23,V-S24	V-S21,V-S22,V-S23,V-S24	- - - -	- - - -	---
	Tutorial	--	--	---	---	--	--	- - - -	- - - -	---
	Lab	--	--	---	---	--	--	- - - -	- - - -	---
	Skilling	--	--	---	---	--	--	- - - -	- - - -	---

Day	Type										
Sat	Theory	V-S25,V-S26,V-S27,V-S28	V-S25,V-S26,V-S27,V-S28	V-S13,V-S14,V-S15,V-S16,V-S41,V-S42,V-S43,V-S44	V-S13,V-S14,V-S15,V-S16,V-S41,V-S42,V-S43,V-S44	---	---	-	-	-	---
	Tutorial	--	--	--	--	---	---	-	-	-	---
	Lab	--	--	--	--	---	---	-	-	-	---
	Skilling	--	--	--	--	---	---	-	-	-	---
Sun	Theory	--	--	--	--	--	--	-	-	-	--
	Tutorial	--	--	--	--	--	--	-	-	-	--
	Lab	--	--	--	--	--	--	-	-	-	--
	Skilling	--	--	--	--	--	--	-	-	-	--

REMEDIAL CLASSES:

Supplement course handout, which may perhaps include special lectures and discussions that would be planned, and schedule notified according

SELF-LEARNING:

Assignments to promote self-learning, survey of contents from multiple sources.

S.no	Topics	CO	ALM	References/MOOCS

DELIVERY DETAILS OF CONTENT BEYOND SYLLABUS:

Content beyond syllabus covered (if any) should be delivered to all students that would be planned, and schedule notified accordingly.

S.no	Advanced Topics, Additional Reading, Research papers and any	CO	ALM	References/MOOCS

EVALUATION PLAN:

Evaluation Type	Evaluation Component	Weightage/Marks	Assessment Dates	Duration (Hours)	CO1	CO2	CO3	CO4

Evaluation	Component	Metric	Value	Date(s)	Duration	C1	C2	C3	C4
End Semester Summative Evaluation Total= 40 %	End Semester Exam	Weightage	40	03-05-2025, 03-05-2025, 03-05-2025, 03-05-2025	180	10	10	10	10
		Max Marks	100			25	25	25	25
In Semester Formative Evaluation Total= 25 %	ALM CO4	Weightage	3.75	12-04-2025	30				3.75
		Max Marks	25						25
	ALM CO3	Weightage	3.75	15-03-2025	30			3.75	
		Max Marks	25					25	
	ALM CO2	Weightage	3.75	15-02-2025	30		3.75		
		Max Marks	25				25		
	ALM CO1	Weightage	3.75	18-01-2025	30	3.75			
		Max Marks	25			25			
	Home Assignment and Textbook	Weightage	10	11-01-2025,08-02-2025,08-03-2025,05-04-2025	60	2.5	2.5	2.5	2.5
		Max Marks	100			25	25	25	25
In Semester Summative Evaluation Total= 35 %	Semester in Exam-II	Weightage	17.5	21-04-2025, 21-04-2025	90			8.75	8.75
		Max Marks	50					25	25
	Semester in Exam-I	Weightage	17.5	17-02-2025,17-02-2025	90	8.75	8.75		
		Max Marks	50			25	25		

ATTENDANCE POLICY:

Every student is expected to be responsible for regularity of his/her attendance in class rooms and laboratories, to appear in scheduled tests and examinations and fulfill all other tasks assigned to him/her in every course
In every course, student has to maintain a minimum of 85% attendance to be eligible for appearing in Semester end examination of the course, for cases of medical issues and other unavoidable circumstances the students will be condoned if their attendance is between 75% to 85% in every course, subjected to submission of medical certificates, medical case file and other needful documental proof to the concerned departments

DETENTION POLICY :

In any course, a student has to maintain a minimum of 85% attendance and In-Semester Examinations to be eligible for appearing to the Semester End Examination, failing to fulfill these conditions will deem such student to have been detained in that course.

PLAGIARISM POLICY :

Supplement course handout, which may perhaps include special lectures and discussions

COURSE TEAM MEMBERS, CHAMBER CONSULTATION HOURS AND CHAMBER VENUE DETAILS:

Supplement course handout, which may perhaps include special lectures and discussions

Name of Faculty	Delivery Component of Faculty	Sections of Faculty	Chamber Consultation Day (s)	Chamber Consultation Timings for each day	Chamber Consultation Room No:	Signature of Course faculty:
Suresh Namgiri	L	38-MA,20-	-	-	-	-

		MA,15-MA				
Somlal Jarupula	L	23-MA,39-MA	-	-	-	-
BADUGU SURESH	L	24-MA,11-MA,55-MA,42-MA	-	-	-	-
Kasi Prasad Mannepalli	L	50-MA,12-MA,14-MA	-	-	-	-
Kiran Kumar Eepuri	L	54-MA,6-MA,13-MA	-	-	-	-
NAGESH MANTRAVADI	L	33-MA,19-MA,21-MA,41-MA	-	-	-	-
VENKATA SAI BOKKISAM	L	10-MA,44-MA,46-MA,1-MA	-	-	-	-
SIVAPRASAD LEBAKA	L	40-MA,7-MA,27-MA,35-MA	-	-	-	-
TAMMINENI SREELATHA	L	36-MA,56-MA,28-MA,8-MA	-	-	-	-
SRINIVASARAO ALLURI	L	26-MA,34-MA,49-MA,48-MA	-	-	-	-
Neppalli Ramesh	L	2-MA,53-MA,16-MA,18-MA	-	-	-	-
RAJANIDEVI MERIGALA	L	17-MA,22-MA,51-MA,25-MA,3-MA	-	-	-	-
LAKSHMUNAIDU M	L	47-MA,5-MA,52-	-	-	-	-

		MA,4-MA				
GANESH BABU RAJENDRAN	L	43-MA,9-MA,45-MA,37-MA	-	-	-	-

GENERAL INSTRUCTIONS

Students should come prepared for classes and carry the text book(s) or material(s) as prescribed by the Course Faculty to the class.

NOTICES

Most of the notices are available on the LMS platform.

All notices will be communicated through the institution email.

All notices concerning the course will be displayed on the respective Notice Boards.

Signature of COURSE COORDINATOR

(Suresh Namgiri)

Signature of Department Prof. Incharge Academics & Vetting Team Member

Department Of DBES-2

HEAD OF DEPARTMENT:

Approval from: DEAN-ACADEMICS
(Sign with Office Seal) [object HTMLDivElement]