DISCIPLINE	SEMESTER	NAME OF THE TEACHING FACULTY	
E&TC Engg	5th	MRS SOUMYASREE KALYANI PANDA, LECT(E&TC)	

SUBJECT: ENTERPRENUERSHIP AND MANAGEMENT AND SMART TECHNOLOGY BROADBAND COMMUNICATION ENGINEERING(TH-1)	NO. OF DAYS PER WEEK CLASS ALLOTED : 04	SEMESTER FROM 14/07/2025 TO 15/11/2025
		NO. OF WEEKS:- 15 NOS.

WEEKS	CLASS DAYS	THEORY TOPICS	Teaching aid to be used
1st WEEK	1ST	Concept /Meaning of Entrepreneurship	White board, marker
	2ND	Need of Entrepreneurship	White board, marker
	3RD	Characteristics, Qualities and Types of entrepreneur, Functions	White board, marker
	4TH	Barriers in entrepreneurship	White board, marker
2nd WEEK	1ST	Entrepreneurs vrs. Manager	White board, marker
	2ND	Forms of Business Ownership: Sole proprietorship, partnership forms and others	Smart Class (Interactive Panel)
	3RD	Type of industries, concept of start-ups	White board, marker
	4TH	Entrpreneurial support agencies at national, state, district level	White board, marker
3rd WEEK	1ST	Technology Business Incubators (TBI) and Science and Technology Entrepreneur Parks	White board, marker
	2ND	Business Planning	Smart Class (Interactive Panel)
	3RD	SSI, Ancillary Units, Tiny Units, Service sector Units	White board, marker
	4TH	Time schedule Plan, Agencies to be contacted for Project Implementation	White board, marker
4th WEEK	1ST	Assessment of Demand and supply and Potential areas of Growth	White board, marker
	2ND	Identifying Business Opportunity	Smart Class (Interactive Panel)
	3RD	Final Product selection	White board, marker
	4TH	Preliminary project report	Smart Class (Interactive Panel)
5th WEEK	1ST	Detailed project report, Techno economic Feasibility	White board, marker
	2ND	Project Viability	White board, marker
	3RD	Definitions of management	White board, marker
	4TH	Principles of management	Smart Class (Interactive Panel)
6th WEEK	1ST	Functions of management (planning, organising, staffing, directing and controlling etc.)	Smart Class (Interactive Panel)
	2ND	Level of Management in an Organisation	White board, marker
	3RD	Production management	Smart Class (Interactive Panel)
	4TH	Functions, Activities	White board, marker
7th WEEK	1ST	Productivity	Smart Class (Interactive Panel)
	2ND	Quality control	Smart Class (Interactive Panel)
	3RD	Production Planning and control	Smart Class (Interactive Panel)
	4TH	Inventory Management	White board, marker
8th WEEK	1ST	Need for Inventory management	White board, marker
	2ND	Model / Technique of inventry management	White board, marker
	3RD	Functions of Financial management	White board, marker
	4TH	Management of working capital	White board, marker
9th WEEK	1ST	Costing	White board, marker
	2ND	Break even analysis	White board, marker
	3RD	Breaf idea about accounting terminologies:book keeping,journal entry,petty cashbook,P&L Accounts,	White board, marker
	4TH	Concept of marketing and marketing management	White board, marker
10th WEEK	1ST	Marketing technique	White board, marker
	2ND	Concept of 4 P's (Price,place,product,promotion)	White board, marker
	3RD	Functions of personnel management	White board, marker
	4TH	Manpower Planning, Recruitment, Sources of manpower, Selection process, Method of Testing, Methods of	White board, marker
11th WEEK	1ST	Definition and Need/Importance	White board, marker
	2ND	Qualities and functions of a leader	White board, marker
	3RD	Manager Vs Leader	White board, marker
	4TH	Style of Leadership (Autocratic, Democratic, Participative)	Smart Class (Interactive Panel)
12th WEEK	1ST	Definition and characteristics	Smart Class (Interactive Panel)
	2ND	Importance of motivation	Smart Class (Interactive Panel)
	3RD	Factors affecting motivation	White board, marker
	4TH	Theories of motivation (Maslow)	White board, marker
13th WEEK	1ST	Methods of Improving Motivation	White board, marker
	2ND	Importance of Communication in Business	White board, marker
	3RD	Types and Barriers of Communication	White board, marker
	4TH	Human relationship and Performance in Organization	White board, marker
14th WEEK	1ST	Relations with Peers, Superiors and Subordinates	White board, marker
	2ND	TQM concepts: Quality Policy, Quality Management, Quality system	White board, marker
	3RD	Accidents and Safety, Cause, preventive measures, General Safety Rules , Personal Protection	White board, marker
	4TH	Intellectual Property Rights(IPR), Patents, Trademarks, Copyrights	White board, marker
15th WEEK	1ST	Features of Factories Act 1948 with Amendment	White board, marker
	2ND	Features of Payment of Wages Act 1936	White board, marker
	3RD	Concept of IOT, How IOT works	Smart Class (Interactive Panel)
	4TH	Components of IOT, Characteristics of IOT, Categories of IOT, Application of IOT- Smart cities, smart transporttion, smart home, smrt health care Smart Industry, Smart Agriculture, Smart Energy Management etc.	Smart Class (Interactive Panel)

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DISCIPLINE	SEMESTER	NAME OF THE TEACHING FACULTY	
ELECTRICAL	3RD	MRS SOUMYASREE KALYANI PANDA(PTGF)	

SUBJECT...EMI ..... LAB	NO. OF DAYS PER WEEK CLASS ALLOTED : 04	SEMESTER FROM 14/07/2025 TO 15/11/2025
		NO. OF WEEKS : 15 NOS.

WEEKS	CLASS DAYS	THEORY TOPICS
1ST WEEK	1ST	Study and construction of moving coil and moving iron instruments & calibrate
	2ND	Study and construction of moving coil and moving iron instruments & calibrate
	3RD	Study and construction of moving coil and moving iron instruments & calibrate
	4TH	Study and construction of moving coil and moving iron instruments & calibrate.with record check and rubrics
2ND WEEK	1ST	Study of static and dynamic characteristic of PMMC & moving iron instruments
	2ND	Study of static and dynamic characteristic of PMMC & moving iron instruments
	3RD	Study of static and dynamic characteristic of PMMC & moving iron instruments
	4TH	Study of static and dynamic characteristic of PMMC & moving iron instruments
3RD WEEK	1ST	Study of static and dynamic characteristic of PMMC & moving iron instruments
	2ND	Study of static and dynamic characteristic of PMMC & moving iron instruments
	3RD	Study of static and dynamic characteristic of PMMC & moving iron instruments
	4TH	Study of static and dynamic characteristic of PMMC & moving iron instruments., with record check and
4THWEEK	1ST	Study of Resolution and sensitivity of Digital Instrument
	2ND	Study of Resolution and sensitivity of Digital Instrument
	3RD	Study of Resolution and sensitivity of Digital Instrument
	4TH	Study of Resolution and sensitivity of Digital Instrument., with record check and rubrics
5TH WEEK	1ST	Measurement of Current and Voltages by Low range ammeter and voltmeter respectively with shunt and multiplier.
	2ND	Measurement of Current and Voltages by Low range ammeter and voltmeter respectively with shunt and multiplier.
	3RD	Measurement of Current and Voltages by Low range ammeter and voltmeter respectively with shunt and multiplier.
	4TH	Measurement of Current and Voltages by Low range ammeter and voltmeter respectively with shunt and multiplier.,with record check and rubrics
6TH WEEK	1ST	Observe the wave forms of different frequency by using Function generator and draw its diagram measure the amplitude and frequency & calculates average & R.M.S. Values, frequency, Time Periods using CRO.
	2ND	Observe the wave forms of different frequency by using Function generator and draw its diagram measure the amplitude and frequency & calculates average & R.M.S. Values, frequency, Time Periods using CRO.
	3RD	Observe the wave forms of different frequency by using Function generator and draw its diagram measure the amplitude and frequency & calculates average & R.M.S. Values, frequency, Time Periods using CRO.
	4TH	Observe the wave forms of different frequency by using Function generator and draw its diagram measure the amplitude and frequency & calculates average & R.M.S. Values, frequency, Time Periods using CRO.

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7TH WEEK	1ST	Observe the wave forms of different frequency by using Function generator and draw its diagram measure the amplitude and frequency & calculates average & R.M.S. Values, frequency, Time Periods using CRO.
	2ND	Observe the wave forms of different frequency by using Function generator and draw its diagram measure the amplitude and frequency & calculates average & R.M.S. Values, frequency, Time
	3RD	Observe the wave forms of different frequency by using Function generator and draw its diagram measure the amplitude and frequency & calculates average & R.M.S. Values, frequency, Time Periods using CRO.
	4TH	Observe the wave forms of different frequency by using Function generator and draw its diagram measure the amplitude and frequency & calculates average & R.M.S. Values, frequency, Time
8TH WEEK	1ST	Measure the unknown frequency and phase angle using CRO by Lissajous figure.
	2ND	Measure the unknown frequency and phase angle using CRO by Lissajous figure.
	3RD	Measure the unknown frequency and phase angle using CRO by Lissajous figure.
	4TH	Measure the unknown frequency and phase angle using CRO by Lissajous figure.
9TH WEEK	1ST	Measure the unknown frequency and phase angle using CRO by Lissajous figure.
	2ND	Measure the unknown frequency and phase angle using CRO by Lissajous figure.
	3RD	Measure the unknown frequency and phase angle using CRO by Lissajous figure.
	4TH	Measure the unknown frequency and phase angle using CRO by Lissajous figure.,with record check and rubrics
10TH WEEK	1ST	Measurement of resistance using Wheatstone's Bridge
	2ND	Measurement of resistance using Wheatstone's Bridge
	3RD	Measurement of resistance using Wheatstone's Bridge
	4TH	Measurement of resistance using Wheatstone's Bridge.
11TH WEEK	1ST	Measurement of resistance using Wheatstone's Bridge
	2ND	Measurement of resistance using Wheatstone's Bridge
	3RD	Measurement of resistance using Wheatstone's Bridge
	4TH	Measurement of resistance using Wheatstone's Bridge.,with record check and rubrics
12TH WEEK	1ST	Measure the inductance by Maxwell's Bridge &Hay's Bridge
	2ND	Measure the inductance by Maxwell's Bridge &Hay's Bridge
	3RD	Measure the inductance by Maxwell's Bridge &Hay's Bridge
	4TH	Measure the inductance by Maxwell's Bridge &Hay's Bridge
13TH WEEK	1ST	Measure the inductance by Maxwell's Bridge &Hay's Bridge
	2ND	Measure the inductance by Maxwell's Bridge &Hay's Bridge
	3RD	Measure the inductance by Maxwell's Bridge &Hay's Bridge
	4TH	Measure the inductance by Maxwell's Bridge &Hay's Bridge.with record check and rubrics
14TH WEEK	1ST	Practice of previous experiments ,with record check and rubric
	2ND	Practice of previous experiments ,with record check and rubric
	3RD	Practice of previous experiments ,with record check and rubric
	4TH	Practice of previous experiments ,with record check and rubric
15TH WEEK	1ST	Practice of previous experiments ,with record check and rubrics
	2ND	Practice of previous experiments ,with record check and rubrics
	3RD	Practice of previous experiments ,with record check and rubrics
	4TH	Practice of previous experiments ,with record check and rubrics

LESSON PLAN FOR THE SESSION: 2025-26

		NAME OF THE TEACHING FACULTY	
E&TC Engg	3RD	SOUMYASREE KALYANI PANDA,LECT(ETC)	

DIGITAL ELECTRONICS	NO. OF DAYS PER WEEK CLASS ALLOTED : 03	SEMESTER FROM 14/07/25 TO 15/11/25
		NO. OF WEEKS:- 15 NOS.

WEEKS	CLASS DAYS	THEORY TOPICS	Teaching aid to be used
1ST WEEK	1ST	Basic logic gates: OR, AND, and NOT(Truth tables, Logic symbols, Logic voltage levels & Logic circuit design examples)	White board, marker
	2ND	Explain about Integrated Circuits	White board, marker
	3RD	NOR, NAND, Exclusive OR, and Exclusive NOR gates. & NOR and NAND gates used as inverters.	White board, marker
2ND WEEK	1ST	Fan-in and fan-out, Termination of unused inputs, AND andOR gates constructed fromNAND and NOR gates	White board, marker
	2ND	Boolean operations (OR, AND, NOT), Representation of logic circuits by Boolean expressions.	White board, marker
	3RD	Laws of Boolean algebra: Double inversion: $A''=A$, OR identities: $A+0 = A$, $A+1=1$, $A+A=A$, $A+A'=1$, AND identities: $A.0=0$, $A.1=A$, $A.A=A$, $A.A'=0$, Cumulative laws: $A+B=B+A$, $A.B=B.A$, Associative laws:$(A+B)+C=A+(B+C)$, $(A.B).C=A.(B.C)$, Distributive laws: $A+(B.C)=(A+B).(A+C)$, $A.(B+C)=A.B+A.C$, DeMorgan's theorems :$(A+B+C+...)'=A'.B'.C'...$,$(A.B.C...)'=A'+B'+C'...$, Applications to logic circuit simplifications and design	Smart Class (Interactive Panel)
3RD WEEK	1ST	Equivalent logic gates, NAND and NOR implementations of logic circuits	White board, marker
	2ND	Standard forms of Boolean expressions: Sum-of-products (SOP) & Product-of-sums (POS)	White board, marker
	3RD	Karnaugh mapping(3 & 4 Variables) & Minimization of logical expressions, don't care conditions	White board, marker
4TH WEEK	1ST	Explain Half adder and full adder with truth table and logic diagram	Smart Class (Interactive Panel)
	2ND	Explain Half Subtractor and full Subtractor with truth table and logic diagram	White board, marker
	3RD	Explain 4 bit adder with the truth table and logic diagram	White board, marker
5TH WEEK	1ST	Explain about Multiplexer(4:1) and De-Multiplexer(1:4)	Smart Class (Interactive Panel)
	2ND	Explain the Decoder and Encoder with truth table and logic diagram	White board, marker
	3RD	Explain Digital comparator (3 Bit) & Seven segment Decoder	Smart Class (Interactive Panel)
6TH WEEK	1ST	Basic latches: NOR latch, NAND latch & Exampleuses of latches	White board, marker
	2ND	Gated latches: Gated S-R latch & Gated D-latch	White board, marker
	3RD	Flip-flops: Master-slave and edge-triggered principles	White board, marker
7TH WEEK	1ST	Explain about S-R flip-flop & D-type flip-flop	Smart Class (Interactive Panel)
	2ND	Explain about J-K flip-flop & T-type flip-flop	Smart Class (Interactive Panel)
	3RD	Flip-flop timing diagrams	White board, marker
8TH WEEK	1ST	Circuit diagram and working principle of Binary counters	Smart Class (Interactive Panel)
	2ND	up-down counter (circuits, truth tables, and timing diagrams)	White board, marker
	3RD	Asynchronous counters and ripple counter	Smart Class (Interactive Panel)
9TH WEEK	1ST	Synchronous counters and Decade counter	Smart Class (Interactive Panel)
	2ND	Module–n counter and its combinations	Smart Class (Interactive Panel)
	3RD	Divide-by-n counters obtained from truncated binary sequences	White board, marker

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10TH WEEK	1ST	Synchronous counter design using D-type flip-flops & Synchronous counter design using J-K flip-flops	White board, marker
	2ND	Shift Registers: Circuit diagram, truth tables, and timing diagrams of Shift Registers	White board, marker
	3RD	Serial input shift register	White board, marker
11TH WEEK	1ST	Serial/parallel load shift register	White board, marker
	2ND	Shift register counters: Ring counter	White board, marker
	3RD	Self-starting ring counter & Johnson counter	White board, marker
12TH WEEK	1ST	Define the terms ROM, RAM, PROM, EPROM.	White board, marker
	2ND	Draw a typical memory cell	White board, marker
	3RD	Design a small diode matrix ROM to serve as a code converter	White board, marker
13TH WEEK	1ST	Design and draw the logic diagramof a specified size memory system	White board, marker
	2ND	Operating principle of dynamic memory	White board, marker
	3RD	Advantages and disadvantages of dynamic memory vs. static memory	White board, marker
14TH WEEK	1ST	Difference between dynamic memory vs. static memory	White board, marker
	2ND	Combinational vs. Sequential circuits	Smart Class (Interactive Panel)
	3RD	Adder, Subtractor, decoder, multiplexer, de-multiplexer, and comparator	Smart Class (Interactive Panel)
15TH WEEK	1ST	Adder, Subtractor, decoder, multiplexer, de-multiplexer, and comparator	Smart Class (Interactive Panel)
	2ND	Finite state machines- Concept only	Smart Class (Interactive Panel)
	3RD	Revision about the above topics	Smart Class (Interactive Panel)

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DISCIPLINE	SEMESTER	NAME OF THE TEACHING FACULTY		
ELECTRICAL	3RD	MRS SOUMYASREE KALYANI PANDA(PTGF)		
SUBJECT:DIGITAL ELECTRONICS LAB	NO. OF DAYS PER WEEK CLASS ALLOTED : 04		SEMESTER FROM 14/07/2025 TO 15/11/2025	
			NO. OF WEEKS : 15 NOS.	

WEEKS	CLASS DAYS	THEORY TOPICS
1ST WEEK	1ST	Familiarization of Digital Trainer Kit & Digital ICs 7400, 7402, 7404, 7408, 7432& 7486 (draw their pin diagram and features)
	2ND	Familiarization of Digital Trainer Kit & Digital ICs 7400, 7402, 7404, 7408, 7432& 7486 (draw their pin diagram and features)
	3RD	Familiarization of Digital Trainer Kit & Digital ICs 7400, 7402, 7404, 7408, 7432& 7486 (draw their pin diagram and features)
	4TH	Familiarization of Digital Trainer Kit & Digital ICs 7400, 7402, 7404, 7408, 7432& 7486., with record check ans rubrics
2ND WEEK	1ST	Verify truth tables of AND, OR, NOT, NOR, NAND, XOR, XNOR gates using ICs & simplifications of Boolean gates
	2ND	Verify truth tables of AND, OR, NOT, NOR, NAND, XOR, XNOR gates using ICs & simplifications of Boolean gates
	3RD	Verify truth tables of AND, OR, NOT, NOR, NAND, XOR, XNOR gates using ICs & simplifications of Boolean gates
	4TH	Verify truth tables of AND, OR, NOT, NOR, NAND, XOR, XNOR gates using ICs & simplifications of Boolean gates.,with record check ans rubrics
3RD WEEK	1ST	Construct & verify operation of Half adder and Full adder using logic gates
	2ND	Construct & verify operation of Half adder and Full adder using logic gates
	3RD	Construct & verify operation of Half adder and Full adder using logic gates
	4TH	Construct & verify operation of Half adder and Full adder using logic gates.,with record check and rubrics
4TH WEEK	1ST	Construct & verify operation of Half Subtractor and Full Subtractor using logic gates
	2ND	Construct & verify operation of Half Subtractor and Full Subtractor using logic gates
	3RD	Construct & verify operation of Half Subtractor and Full Subtractor using logic gates
	4TH	Construct & verify operation of Half Subtractor and Full Subtractor using logic gates.,with record check and rubrics
5TH WEEK	1ST	Design& implement a 4-bit Binary to Gray code converter.
	2ND	Design& implement a 4-bit Binary to Gray code converter.
	3RD	Design& implement a 4-bit Binary to Gray code converter.
	4TH	Design& implement a 4-bit Binary to Gray code converter.,with record check and rubrics
6TH WEEK	1ST	Design& implement a single bit/two-bit digital comparator circuit
	2ND	Design& implement a single bit/two-bit digital comparator circuit
	3RD	Design& implement a single bit/two-bit digital comparator circuit
	4TH	Design& implement a single bit/two-bit digital comparator circuit., with record check and rubrics
7TH WEEK	1ST	Design Multiplexer (4:1)
	2ND	Design Multiplexer (4:1)
	3RD	Design Multiplexer (4:1)
	4TH	Design Multiplexer (4:1).,with record check and rubrics

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Week	Session	Topic
H WEEK	1ST	Design De-multiplexer (1:4)
	2ND	Design De-multiplexer (1:4)
	3RD	Design De-multiplexer (1:4)
	4TH	Design De-multiplexer (1:4).,with record check and rubrics
9TH WEEK	1ST	Study the operation of flip-flops (i) S-R flip flop (ii) J-K flip flop (iii) D flip flop (iv) T flip flop
	2ND	Study the operation of flip-flops (i) S-R flip flop (ii) J-K flip flop (iii) D flip flop (iv) T flip flop
	3RD	Study the operation of flip-flops (i) S-R flip flop (ii) J-K flip flop (iii) D flip flop (iv) T flip flop
	4TH	Study the operation of flip-flops (i) S-R flip flop (ii) J-K flip flop (iii) D flip flop (iv) T flip flop.,with record check and rubrics
10TH WEEK	1ST	Realize a 4-bit asynchronous UP/Down Counter.
	2ND	Realize a 4-bit asynchronous UP/Down Counter.
	3RD	Realize a 4-bit asynchronous UP/Down Counter.
	4TH	Realize a 4-bit asynchronous UP/Down Counter.,with record check and rubrics
11TH WEEK	1ST	Study shift registers-4 bit Registers
	2ND	Study shift registers-4 bit Registers
	3RD	Study shift registers-4 bit Registers
	4TH	Study shift registers-4 bit Registers.,with record check and rubrics
12TH WEEK	1ST	Seven segment display with a decoder
	2ND	Seven segment display with a decoder
	3RD	Seven segment display with a decoder
	4TH	Seven segment display with a decoder.,with record check and rubrics
13TH WEEK	1ST	Develop a 4-bit ripple counter by using FF
	2ND	Develop a 4-bit ripple counter by using FF
	3RD	Develop a 4-bit ripple counter by using FF
	4TH	Develop a 4-bit ripple counter by using FF.,with record check and rubrics
14TH WEEK	1ST	Develop a decade counter by using a 7490 IC
	2ND	Develop a decade counter by using a 7490 IC
	3RD	Develop a decade counter by using a 7490 IC
	4TH	Develop a decade counter by using a 7490 IC.,with record check and rubrics
15TH WEEK	1ST	Mini Project using Software: To collect data like pin configurations, display devices, Operational characteristics, applications and critical factors etc. on all digital ICs studied in theory and compile a project report throughout and submit at the end of the semester. To assemble and tests circuits using above digital ICs with test points e.g. Digital Clock/Frequency Counter/ Running Glow Light up to 999/Solar cell & Opto coupler applications.
	2ND	Mini Project using Software: To collect data like pin configurations, display devices, Operational characteristics, applications and critical factors etc. on all digital ICs studied in theory and compile a project report throughout and submit at the end of the semester. To assemble and tests circuits using above digital ICs with test points e.g. Digital Clock/Frequency Counter/ Running Glow Light up to 999/Solar cell & Opto coupler applications.
	3RD	Mini Project using Software: To collect data like pin configurations, display devices, Operational characteristics, applications and critical factors etc. on all digital ICs studied in theory and compile a project report throughout and submit at the end of the semester. To assemble and tests circuits using above digital ICs with test points e.g. Digital Clock/Frequency Counter/ Running Glow Light up to 999/Solar cell & Opto coupler applications.
	4TH	Mini Project using Software: To collect data like pin configurations, display devices, Operational characteristics, applications and critical factors etc. on all digital ICs studied in theory and compile a project report throughout and submit at the end of the semester. To assemble and tests circuits using above digital ICs with test points e.g. Digital Clock/Frequency Counter/ Running Glow Light up to 999/Solar cell & Opto coupler applications.

LESSON PLAN FOR THE SESSION: 2025-26

DISCIPLINE	SEMESTER	NAME OF THE TEACHING FACULTY	
E&TC Engg	3RD	SOUMYASREE KALYANI PANDA,LECT(ETC)	

ELECTRONICS MEASUREMENT & INSTRUMENTATION	NO. OF DAYS PER WEEK CLASS ALLOTED : 03	SEMESTER FROM 14/07/25 TO 15/11/25
		NO. OF WEEKS:- 20 NOS.

WEEKS	CLASS DAYS	THEORY TOPICS	Teaching aid to be used
1ST WEEK	1ST	Discuss the Static Characteristics	White board, marker
	2ND	Accuracy, sensitivity, reproducibility & static error of instruments	White board, marker
	3RD	Dynamic characteristics& speed of instruments	White board, marker
2ND WEEK	1ST	Errors of an instrument	White board, marker
	2ND	Introduction to Indicating Instruments and Types of Indicating instruments	White board, marker
	3RD	Basic operating principle of Indicating Instruments	Smart Class (Interactive Panel)
3RD WEEK	1ST	Working principle of permanent magnetic moving coil Instruments & Moving Iron Instrument	White board, marker
	2ND	Basic principle of operation of DC Ammeter and Multirange Ammeter & AC Ammeter and Multi range Ammeter	White board, marker
	3RD	Basic principle of operation of DC Voltmeter & AC voltmeter and its applications	White board, marker
4TH WEEK	1ST	Basic principle of OhmMeter (Series & Shunt type)	Smart Class (Interactive Panel)
	2ND	Basic principle of Analog Multimeter and its types & applications, Operation of Q meter and its essentials	White board, marker
	3RD	Principle of operation of Ramp type Digital Voltmeter & applications	White board, marker
5TH WEEK	1ST	Operation of display of Digital Multimeter & Resolution and Sensitivity	Smart Class (Interactive Panel)
	2ND	Basic Operating principle of Digital Multimeter, its types & applications	White board, marker
	3RD	Basic Operating principle of Digital Frequency Meter	Smart Class (Interactive Panel)
6TH WEEK	1ST	DigitalMeasurement of Time & Measurement of Frequency	White board, marker
	2ND	Operating principle of Digital Tachometer	White board, marker
	3RD	LCR meter & its working principle	White board, marker
7TH WEEK	1ST	Basic Operating principle of Oscilloscope & its Block Diagram	Smart Class (Interactive Panel)
	2ND	Basic Operating principle of Dual Trace Oscilloscope& its specification	Smart Class (Interactive Panel)
	3RD	CRO Measurements	White board, marker
8TH WEEK	1ST	Lissajous figures	Smart Class (Interactive Panel)
	2ND	Applications of Oscilloscope in measurement of Voltage and frequency	White board, marker
	3RD	Basic Operating principle of Digital Storage Oscilloscope	Smart Class (Interactive Panel)
9TH WEEK	1ST	Basic Operating principle of High frequency Oscilloscope	Smart Class (Interactive Panel)
	2ND	Types of Bridges (DC & AC Bridges) & Working principle of DC Bridges (Measurement of Resistance by Wheatstone's Bridge)	Smart Class (Interactive Panel)
	3RD	Working principle ofAC bridges (Measurement of inductance byMaxwell's Bridge& Hay's Bridge)	White board, marker
10TH WEEK	1ST	Measurement of capacitance by Schering's Bridge & DeSauty Bridge	White board, marker
	2ND	Working principle of Q meter its circuit diagram& measurement of Low impedance	White board, marker
	3RD	Measurement of frequency	White board, marker
11TH WEEK	1ST	LCR Meter & its measurements	White board, marker
	2ND	Define Transducer and Sensor, Type of Transducer & Parameters and advantages of Transducer	White board, marker
	3RD	Working principle of Strain Gauges, Define Strain Gauge (No mathematical Derivation)	White board, marker

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12TH WEEK	1ST	Working principle of LVDT	White board, marker
	2ND	Working principle of capacitive transducers (pressure) & LoadCell (Pressure Cell)	White board, marker
	3RD	Working principle of TemperatureTransducer (RTD, Optical Pyrometer, Thermocouple, and Thermister)	White board, marker
13TH WEEK	1ST	Working principle of Current transducer.	White board, marker
	2ND	Working principle of Proximity & Light sensors.	White board, marker
	3RD	General aspect & classification of Signal generators	White board, marker
14TH WEEK	1ST	General aspect & classification of Signal generators	White board, marker
	2ND	Working principle of AF Sine and Square wave generator	Smart Class (Interactive Panel)
	3RD	Working principle of the Function Generator	Smart Class (Interactive Panel)
15TH WEEK	1ST	Function of basic Wave Analyser and SpectrumAnalyser	Smart Class (Interactive Panel)
	2ND	Basic concept of Data Acquisition System(DAS)	Smart Class (Interactive Panel)
	3RD	Revision of the above topics	Smart Class (Interactive Panel)