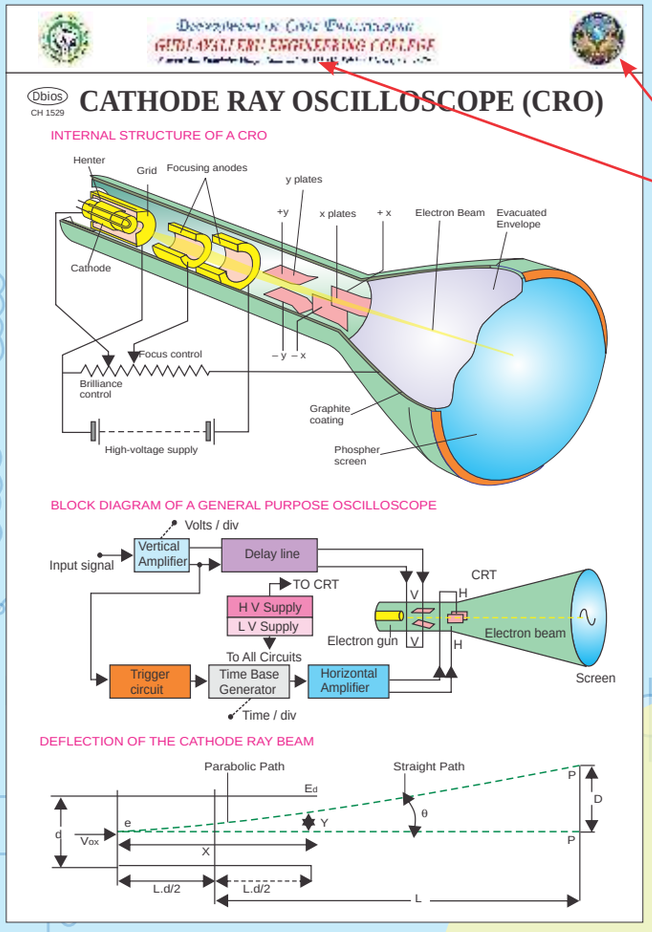
Dbios

LIST No. 12
w.e.f. Apr.15, 2016

20”

30”



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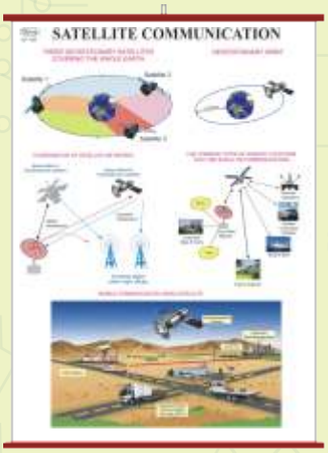
Logo & Name



Size: 20”X30”

Laminated and Attached with Strips

Size: 20”X26”

Laminated and Framed on Board

Dbios ELECTRONICS experimental Charts

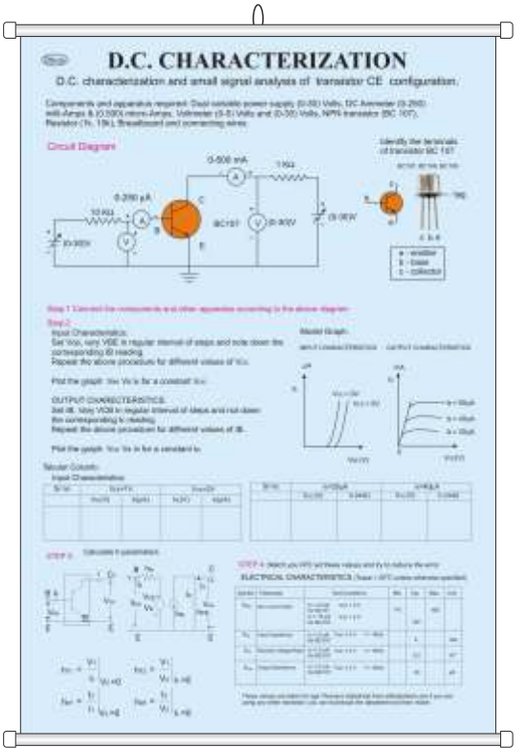
Size: 30”X40” Laminated and attached with Plastic Rollers

Practical Classes Simplified

DEE 01. D.C. characterization and small signal analysis of transistor in CE configuration.
DEE 02. Characteristics of JFET (common source) and find the trans-conductance, Gain and Drain Resistance.
DEE 03. Design of Phase Shift Oscillator using Transistor and error analysis.
DEE 04. Design of Tuned Amplifier using Transistor, find the cut off frequencies and error analysis.
DEE 05. Design a Low Pass Filter and High pass filter using op-amp and error analysis.
DEE 06. To visualize the output in decimal on seven Segment Display for binary as well as BCD inputs.
DEE 07. To generate Double Side Band Full Carrier Amplitude Modulated Waveform and effect of Modulation Index on the AM envelope.
DEE 08. To study demodulation of double side band Amplitude Modulated Signal.
DEE 09. To learn the basic principles of Phase-Locked loop (PLL) and measure its characteristics.
DEE 10. To generate Frequency Modulated signal and calculate modulation index of FM.
DEE 11. To measure the characteristic Impedance of symmetrical and Asymmetrical T and Pie Network
DEE 12. To Study the VI characteristics of SCR and determine the break-over voltage, onstate resistance, holding and Latching current.
DEE 13. To draw V-I characteristics of a TRIAC in both directions and also in different (1, 2, 3 & 4) modes of operation and determine break over voltages, holding current, latching current and comment on sensitivities.
DEE 14. To find the error in CRO and Function Generator of your lab
DEE 15. Design a Second order active Butterworth Low Pass Filter and its error analysis
DEE 16. To study the Wein Bridge Oscillator, its operation and error analysis.
DEE 17. For Half Wave and Full Wave Rectifier with capacitor filter, find line and load regulation and ripple factor.
DEE 18. Design of Class - A amplifier and analysis.
DEE 19. Design of Class- B amplifier and analysis.
DEE 20. To find the Op-Amp characteristics practically and then find the error.

KEY FEATURES

- Time Savings For Teachers
- Step By Step Procedure From Start to the end Diagramatically
- Easy To Understand By Students
- Finding the Errors & Then Analysis for that
- Reducing the Errors are the Basic Priority
- Details & Methods for Readings & Then Using Those For Further Calculations



Dbios

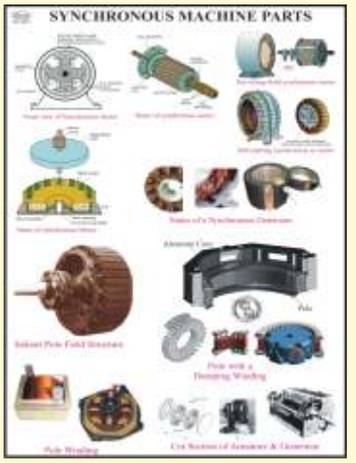
Dbios ELECTRICAL eNGG. CHARTS

Size 20"x 30" Laminated and attached with durable strips

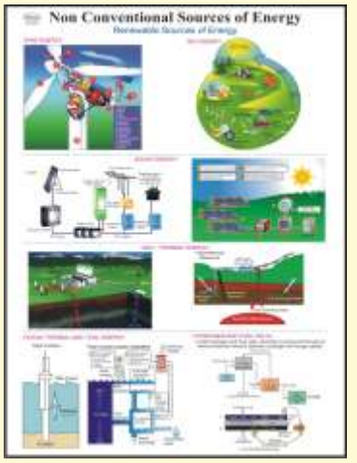
OR Laminated and Framed on Board

CH 2209

CH 2235



CH 2247



CH 2274

BASIC ELECTRICAL WORKSHOP

CH 2200 Safety Precautions in Electric Laboratory
CH 2201 Treatment Against Electric Shock
CH 2202 Electric Bell
CH 2203 Soldering Iron, Immersion Heater & Geyser
CH 2204 Electrical Accessories - I
CH 2205 Electrical Accessories - II
CH 2206 Procedure of Making & Joint
CH 2207 Types of Fuses
CH 2208 Basic Electrical Symbols
CH 2209 Light Bulb
CH 2210 Mercury Vapour Lamps
CH 2211 Fluorescent Tubes
CH 2212 Sodium Vapour Lamps
CH 2213 Wireman's Toos - I
CH 2214 Wireman's Toos - II.
CH 2215 Picture Tube
CH 2216 Watt Hour Meter
CH 2217 Cutaway of a Single Phase
CH 2218 Electrical Estimation and Costing
CH 2219 Stabilizers

E.M.I (ELECTRO MAGNETIC INDUCTION)

CH 2225 Permanent Magnet Moving Coil Instrument (PMMC)
CH 2226 Types of Moving Iron Instruments.
CH 2227 A.C. Bridges - I (Measurement of Self Induction)
CH 2228 A.C. Bridges - II (Measurement of Capacitances)

POWER SUPPORTING SYSTEMS

CH 2271 Thyristor Family
CH 2272 Chopper Circuits
CH 2273 Inverter Circuit
CH 2274 Non Conventional Sources of Energy

Ask for Big Size 30x40" Laminated Dbios Charts

DC MACHINE.

CH 2235 Parts of D.C. Machine
CH 2236 Types of D.C. Generators
CH 2237 Special Types of D.C. Machine
CH 2238 D.C. Motor
CH 2239 D.C. Generator
CH 2240 Three Phase Rectifiers
CH 2241 Cyclo Converters
CH 2242 D. C. MOTOR STARTER

TRANSFORMERS

CH 2245 Transformer
CH 2246 Types of Winding In Transformer
CH 2250 Three Phase and Scott Connected Transformer.

AC MOTOR

CH 2247 Parts of Synchronous Machine
CH 2248 A.C. Generator
CH 2249 A.C. Motor
CH 2252 Single Phase Induction Machine
CH 2253 Three Phase Induction Machine

POWER GENERATION

CH 2256 Coal Fired Power Station
CH 2257 Hydro Power Station
CH 2258 Nuclear Power Station
CH 2259 Diesel Power Station
CH 2260 Over Fired Line Insulation

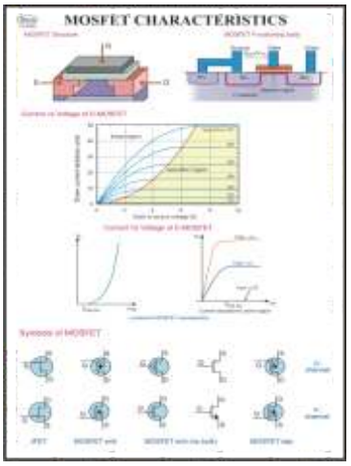
POWER DISTRIBUTION

CH 2251 Electrical Traction System
CH 2265 Types of Electric Poles.
CH 2266 Types of Cable
CH 2267 Earthing
CH 2268 Methods of Supporting a Pole

Dbios ELECTRONIC CHARTS

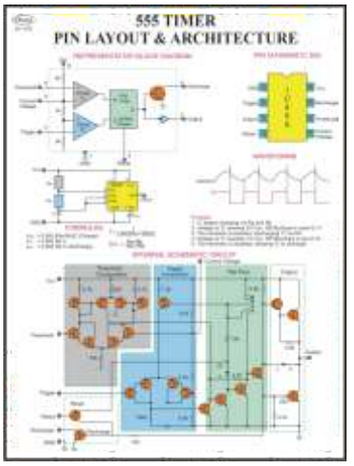
Size 20"x 30" Laminated and attached with durable strips

OR Laminated and Framed on Board

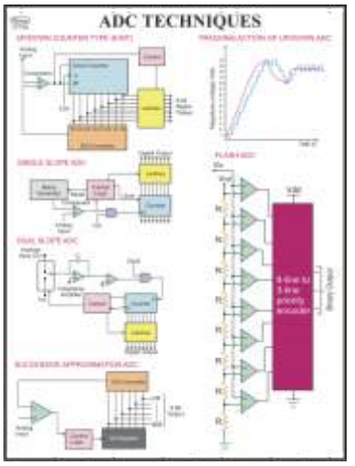


CH 2302

CH 2333



CH 1530



CH 1539

ANALOG DEVICES & CIRCUITS

CH 2300 FET Characteristics
CH 2301 UJT Characteristics
CH 2303 Transistor Configurations and its Characteristics
CH 2304 Class-A Amplifiers (Direct and Transformer Coupled)
CH 2305 Push/Pull Amplifiers
CH 2306 Transistor Hybrid Model and Hparameter
CH 857 Semi-Conductors: Fundamentals
CH 858 Semi-Conductors: Prop. & Characteristics
CH 860 Oscillator
CH 862 Transistor Characteristics
CH 863 Triode Characteristics
CH 864 Rectifiers
CH 865 Symbols - I
CH 866 Symbols - II

ELECTRONICS DEVICES AND CIRCUITS

CH1523 Diodes-I: Zener, Varactor, Schottky & Tunnel
CH1524 Diodes-II: Led, Photo, Pin, Laser
CH1529 Cathode Ray Oscilloscope (CRO)
CH 1530 555 Pin Diagram & Architecture
CH 1531 555 Multi Vibrators
CH 1532 Display Devices
CH 2302 MOSFET Characteristics
CH 2302a Working of MOSFET

DIGITAL CIRCUIT AND LOGIC DESIGN

CH 861 Logic Gates
CH 2310 Number Systems
CH 2311 Codes
CH 2312 Basic Theorems of Boolean Algebra
CH 2313 Adders/ Subtractors
CH 1534a Mux / Demux
CH 1534b Encoders / Decoders
CH 1535 Flip-Flops: SR,T,D.
CH 1536 Flip-Flops: JK, Master-Slave JK
CH 1537 Shift Register Types
CH 1538 Universal Shift Registers
CH 1539 ADC Techniques
CH 1540 DAC Techniques
CH 2314 Asynchronous Counters and Timing Diagram
CH 2315 Synchronous Counter and Timing Diagram
CH 2316 Internal Diagram of Memory (RAM/ROM)
CH 2317 Programmable Logic Arrays (PLA)
CH 2318 Programmable Array Logic (PAL)
CH 2319 Field Programmable Gate Array (FPGA)
CH 2320 Pseudo Random Sequence Generator
CH 2321 Arithmetic Logic Unit

NETWORK ANALYSIS AND SYNTHESIS

CH 2325 Network Theorems
CH 2326 Representation of Basic Circuits in Terms of Frequency Domain
CH 2327 Filters
CH 2328 Butterworth and Chebyshev Filters
CH 2329 Z-Transform of Causal and Non Causal Signals

LINEAR CONTROL SYSTEMS

CH 2331 Error Detectors in Control Systems
CH 2332 Compensation of the Linear Control Systems
CH 2333 Components of Control Systems-1
CH 2334 Components of Control Systems-2
CH 2335 Modeling of Control Systems
CH 2336 Process Control Timer
CH 2337 Gauss-Seidal Method Flow Chart
CH 2338 Voltage Waveforms For 180° Mode 3-Phase VSI
CH 2339 Transformer Zero Sequence Equivalent Circuit
CH 2340 Voltage and Current Wave Forms for A 3-Phase Semi-converter For Different Firing Angle.
CH 2341 Voltage Waveforms And Conduction of Thyristors For A 3-Phase Full Converter
CH 2342 Components of a Power System
CH 2343 Characteristics and Symbols of Some Power Devices
CH 2344 Voltage and Current Waveforms for a Circulating Current Dual Converter

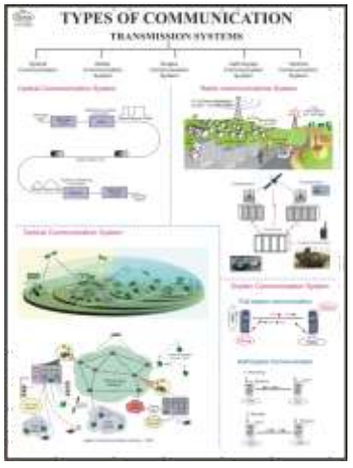
Ask for Big Size 30x40" Laminated Dbios Charts

Dbios

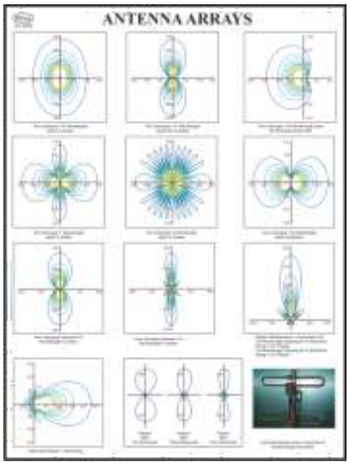
Dbios ELECTRONIC CHARTS

Size 20"x 30" Laminated and attached with durable strips

OR Laminated and Framed on Board

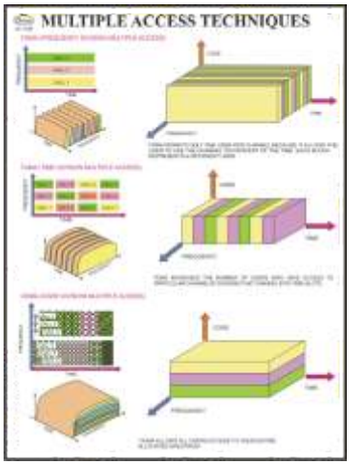


CH 2349



CH 2362

CH 1500



CH 1549

ANALOG COMMUNICATION SYSTEMS

CH 2348 Types of Analog Modulation
CH 2349 Types of Communication Transmission Systems
CH 2350 AM Transmission (Square Law/ Ring/ Balanced)
CH 2351 AM Receivers
CH 2352 AM Mixers
CH 2353 AM Detectors
CH 2354 FM Transmitters
CH 1505 FM Receivers
CH 2355 FM Stereo and 2-Way FM Radio (Transmission & Reception)
CH 1500 Wireless Communication Systems
CH 1501 Single Side Band Modulation
CH 2356 Single Side Band Reception
CH 2357 Pulse Amplitude Modulation (PAM)
CH 2358 Pulse Time/Pulse Width/ Pulse Position Modulation (PTM/PWM/PPM)
CH 1502 Amplitude Modulation
CH 1503 Frequency Modulation
CH 1504 Radio Receivers
CH 1533 PLL (Phase Locked Loop)

ELECTROMAGNETIC & ANTENNAS

CH 2362 Antenna Arrays
CH 2363 Aperture Antennas

PULSE WAVE SHAPING AND SWITCHING

CH 2370 Monostable Multivibrator Using Transistor
CH 2371 Astable Multivibrator Using Transistor
CH 2372 Linear Phase Shaping Circuits and Response
CH 2373 Clipping and Clamping
CH 2374 Diode/ Transistor/ Operational Amplifier Comparators

Also Ask for Other Engg. Charts

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DIGITAL COMMUNICATION SYSTEM

CH 2378 Pulse Code Modulation (PCM)
CH 2379 A-law & μ-law Companding
CH 2380 Delta Modulation and Adaptive Delta Modulation
CH 2381 Digital Carrier Line Encoding Techniques
CH 2382 FSK Detectors
CH 2383 Minimum Shift Keying (MSK) & Gaussian Minimum Shift Keying (GMSK)
CH 1546A Digital Modulation-I (PSK Method)
CH 1546B Digital Modulation-II(Other Methods)
CH 1547 Digital Demodulation
CH 1548 Sampling & Encoding Techniques
CH 1549 Multiple Access Techniques (FDMA/CDMA/TDMA)

LINEAR INTEGRATED CIRCUIT

CH 2385 Differential Amplifiers
CH 2386 Operational Amplifier (Op-Amp)
CH 1519 Feedback Amplifiers
CH 1520 Multistage Amplifiers
CH 2387 Compensating Networks and Compensated Op-Amp
CH 2388 Applications Op-Amp-1: Mathematical operat
CH 2389 Applications Op-Amp-2: Amplifier, Oscillator & Comperator
CH 2390 Applications Op-Amp-3:Synthetic elements & Compensation
CH 2391 Applications Op-Amp-4: Filters
CH 1521 Operational Amplifier: Features
CH 1522 Operational Amplifier: Open & Close Loop Configurations
CH 1595 IC 741: Pin & Block Diagram

Dbios ELECTRONIC CHARTS

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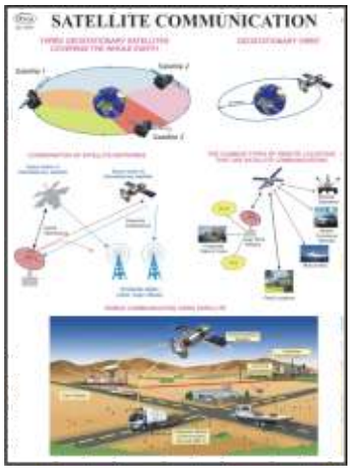
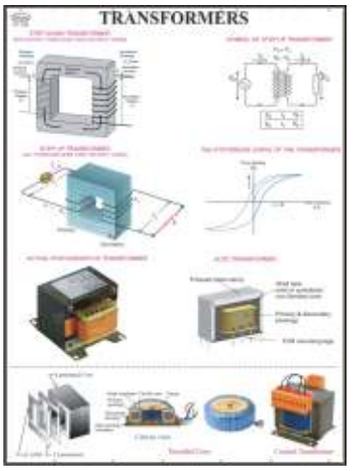
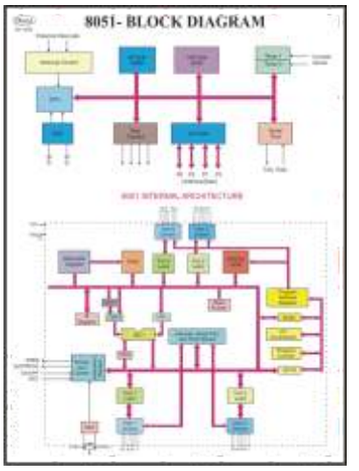
OR Laminated and Framed on Board



CH 1507



CH 1525



CH 1542

CH 1558

MICRO PROCESSORS & MICRO CONTROLLERS

CH 1579 Micro-Controller Based System Design
CH 1541 8051 Architecture & Pin Layout
CH 1542 8051 Block Diagram
CH 1543 8051 Instruction Set
CH 1544 8051 SFR: Special Function Registers
CH 1509 8086 Pin-layout & Architecture
CH 1545A 8086 Instruction Set
CH 1545B 8086 Instruction Set
CH 1510 8085 Block Diagram
CH 1511 8085 Pin Layout & Signal Representation
CH 1512 8085 Set Instruction
CH 1550 8085 Interrupts
CH 1513 8255a The Programmable Peripheral Interface
CH 1514 8155 Static Ram with I/O Ports and Timer
CH 1515 8279: The Programmable Keyboard / Display Interface
CH 1516A 8259 A: The Programable Interrupt Controller
CH 1516B 8254 : The Programmable Interval Timer

MICROWAVE & RADAR ENGINEERING

CH 2396 Microwave Components
CH 2397 Microwave Tubes
CH 2398 Microwave Solid State Devices
CH 2399 Applications of Microwave
CH 1580 Block Diagram and Applications of Radar
CH 1581 Applications of Radar
CH 1582 Types of Radar
CH 1583 Scanning Techniques of Radar
CH 1584 Angle Tracking System in Radar
CH 1585 Radiation Pattern of Horn Antenna
CH 1586 Measurement of Input Power and Isolated Power Setup

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OPTICAL COMMUNICATION

CH 1589 Types of Optical Fiber
CH 1590 Numerical Aperture in Optical Fiber
CH 1506 Fiber Optic Communication
CH 1591 Losses in Optical Fiber
CH 1592 Optical Transmitters
CH 1593 Optical Receivers
CH 1507 Satellite Communication
CH 1508 Electromagnetic Frequency Spectrum

ELECTRONIC INSTRUMENTATIONS

CH 1551 LVDT (Linear Variable Differential Transformer)
CH 1552 PSPD (Pressure Sensitive Primary Devices)
CH 1553 Control Valves
CH 1554 Actuators
CH 1555 Methods Of Measuring Liquid Level
CH 1556 Strain Gauges
CH 1557 Feed Forward & Ratio Control
CH 1558 Types of Voltage Meters
CH 1559 Resistance Measurement Using Bridge

INDUSTRIAL ELECTRONICS

CH 1517 Diac & Triac
CH 1518 UJT & SCR
CH 1525 Transformer
CH 1526 Dynamos
CH 1527 Meter Principles-I (Analog Multimeter)
CH 1528 Meter Principles-II (Multi Meter)
CH 859 Krichoff's Law-Bridges

SIGNAL & SYSTEMS

CH 1575 Transducers and Electrodes
CH 1576 Classification of Signals

Dbios

Dbios Electronic charts

VLSI & DSP (Very Large Scale Integration And Digital Signal Processing)

CH 1561 FABRICATION STEPS OF CMOS
CH 1562 STICK AND LAYOUT DIAGRAM OF LOGIC
CH 1563 High Level Design Flow: VHDL
CH 1564 TMS320C6713 ARCHITECTURE
CH 1565 RADIX 2 FFT ALGORITHM
CH 1566 DIGITAL IIR FILTER STRUCTURES
CH 1567 DIGITAL FIR FILTER STRUCTURES
CH 1568 Elementary Discrete Time Signals
CH 1569 Classification of Discrete Time Signals
CH 1570 Transformations of Discrete Time Signals
CH 1571 Properties of Convolution and Interconnection of LTI Systems:
CH 1572 Structures for the realization of LTI Systems
CH 1573 Characteristics Families of signals and Their ROC's

Dbios NETWORKING charts

Size 20"x 30" Laminated and attached with durable strips

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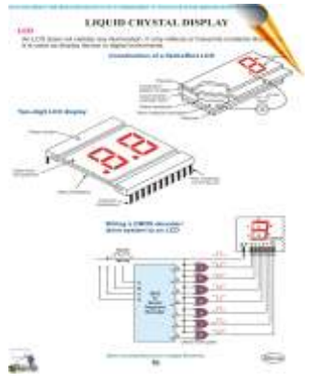
CH 2103 Storage Devices
CH 2104 Memories
CH 2105 OSI Model
CH 2106 Networking Devices
CH 2107 Network Topologies
CH 2108 Input Devices
CH 2109 Output Devices
CH 2110 Modes & Forms Of Data Transmission
CH 2111 Transmission Media
CH 2112 Types Of Computer Networks
CH 2113 Communication Switching Techniques
CH 2115 Microsoft Word
CH 2116 Microsoft Excel
CH 2117 Microsoft Power Point
CH 2141 IP - Address

****O.H.P. Transparencies Version** *** DVD Version**

Print Out (Transparency) + CD Rom Version

Unit-1 Introduction
Unit-2 Number System
Unit-3 Logic Gates
Unit-4 Boolean Algebra
Unit-5 Logic Families
Unit-6 Combinational Circuits
Unit-7 Arithmatic Circuits
Unit-8 Encoders / Decoders / Display
Unit-9 Multiplexers and Demultiplexers
Unit-10 Latches and Flip-Flops
Unit-11 Counters
Unit-12 Registers
Unit-13 Design of Sequential Circuits
Unit-14 Memories
Unit-15 Applications of ADC And DAC



In our Continuous pursuit to unrivaled quality Dbios, now join Hands and Heads with SIBA to cater your Laboratory/Workshop needs under one roof.

- BASIC ELECTRONICS LAB
- ANALOG ELECTRONICS LAB
- Op-Amp LAB
- DIGITAL ELECTRONICS TRAINING LAB
- PROCESS CONTROL EQUIPMENTS LAB
- INSTRUMENTATION TRAINERS LAB
- POWER & INDUSTRIAL TRAINERS LAB
- COMMUNICATION TRAINERS LAB
- MEASUREMENT BRIDGES LAB


TRANSISTOR (BJT) CHARACTERISTICS


SYNCHRO TRANSMITTER - RECEIVER

Dbios

Dbios ELECTRONIC & ELECTRICAL PIONEERS

Size 20"x 26” Laminated and Framed on NU-Wood Board
OR Size 12"x 18” Laminated and Framed on NU-Wood Board

DE 01	Guglielmo Marconi
DE 02	Christiaan Huygens
DE 03	John Ambrose Fleming
DE 04	Alexander Graham Bell
DE 05	P.S. Laplace
DE 06	Clarence Zener
DE 07	Julius Edgar Lilienfeld
DE 08	William Shoekley
DE 09	Alexander Volta
DE 10	James Clark Maxwell
DE 11	Max Plank
DE 12	Johannes Kepler
DE 13	Max Born
DE 14	Jack Kilby
DE 15	Sherman Fairchild
DE 16	Andre-Marie Ampere
DE 17	Georg Simon Ohm
DE 18	Gustav Robert Kirchhoff
DE 19	Joseph Henry
DE 20	Heinrich Rudorf Hertz
DE 21	Nikola Tesla
DE 22	Samuel F. B. Morse
DE 23	John Logie Baird
DE 24	Edwin H. Armstrong
DE 25	John Bardeen
DE 26	Bob Wildar
DE 27	Lord Kelvin
DE 28	Cloude Shannon
DE 29	Edward Hawry Norton
DE 30	L.C. Thevenin
SCP 64	William Gates
DCP 41	R. Noyce & G. Moore
DCP 44	Steve Jobs
DCP 45	Steve Wozniak
SP 14	Issac Newton
SP 15	C. V. Raman
SP 18	Neils Bohr
SP 23	Albert Einstein
SC 27	Gilbert Newton Lewis
SC 30	Michael Faraday
SP 31	Ernest Rutherford
SP 46	Thomas Alva Edison

20”x26”

12”x18”

Ask for Mechanical, Workshop, Civil, Computer/IT Charts