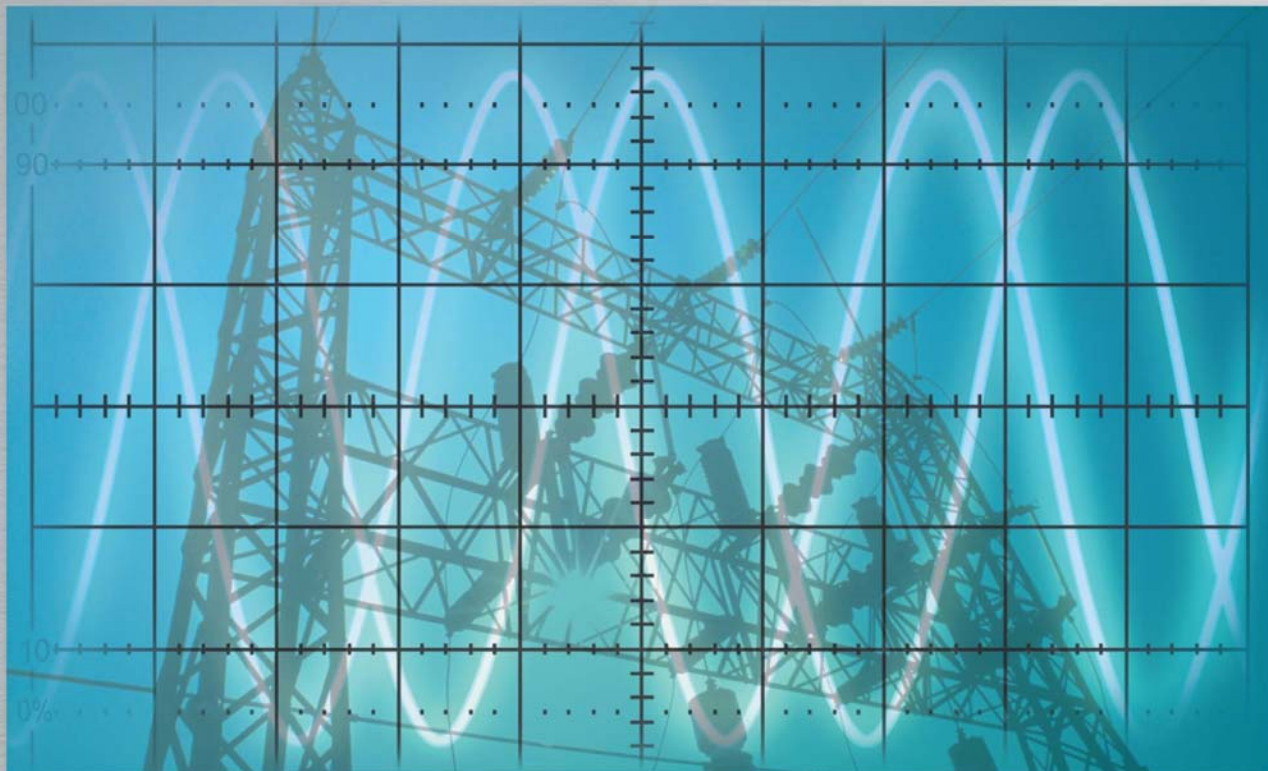


AC Circuits



"Sine Up" for Alternating

From computer power supplies to locomotive drive motors, technology is dependent on AC power to drive its circuits and power its systems. A solid foundation in the theory and operation of AC circuits is paramount to becoming a qualified technician or electrical/electronic engineer. The E & L-Nida AC Circuits courseware provides the fundamentals of AC circuits in computer based instruction, which is ideal for classroom or distance learning environments.

E & L-Nida AC Circuits courseware introduces students to alternating current generation, sine waves, and AC circuit components. It teaches students to use AC test equipment on actual circuits and then reinforces AC theoretical concepts through experiments in inductance, capacitance, RL, RC, LCR, transients, and resonant circuits.

E & L-Nida AC Circuits courseware: providing a solid foundation for your advanced technology courses.

E & L-Nida Analogue Circuits

The E & L-Nida Analogue Circuits courseware is designed in a computer based format to provide your students with a comprehensive, interactive course that makes learning about semi-conductors and discrete components interesting. The courseware provides experiments and troubleshooting scenarios that align with the E & L-Nida Model 1403 (Series) of Analogue Circuits Experiment Board Sets. The board sets support different levels of analogue experiments from basic level to University level. For determining which board set is right for your Analogue Circuits course, refer to the E & L-Nida CAI Course Chart.



Topics

Diodes & Diode Circuits

Introduction to Diodes, Junction Diodes
Diode Limiters, Diode Clampers, Vacuum Tubes

Transistor Circuits

Introduction to Transistors, Transistor Operation
Common Emitter, Collector, & Base Amplifiers

Power Supplies

Introduction to Diode Rectifiers, Bridge Rectifiers
Full & Half Wave Rectifiers, Zener Diodes
Voltage Regulator Operation & Troubleshooting
IC Regulator & Voltage Doubler Operation

Transistor Amplifiers

Multistage Transistor & RC Coupled Amplifiers
Push-Pull, FET, & MOSFET Amplifiers
Amplifier Operation & Troubleshooting

Transistor Oscillators

Sine Wave, Non-Sine Wave, & Blocking Oscillators
Hartley, Colpitts & RC Phase Shift Oscillators
Crystal Controlled Oscillators, Sawtooth Generators

Transistor Pulse Circuits

Astable, Monostable, & Bistable Multivibrators
Schmitt Trigger Operation & Troubleshooting

Trigger Device Circuits

Trigger Devices, Four-Layer Diodes
SCR Trigger & Power Circuits, Triacs & Diacs
Programmable Unijunction Transistors

Operational Amplifiers

Operational Amp Operation & Troubleshooting

RF Electronics

AM Receiver Operation & Troubleshooting

Supporting Hardware

• Model 130E Test Console

• Model 4050 Test Instrument Module

• Model TD2000 Tec Dec

• Model 140 (Series) Analogue Circuits Experiment Boards Set

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