# Figures From Irwin, "Basic Engineering Circuit Analysis", Seventh Edition

Chapter   1: [HTML](Ch1/BasicConcepts7Ed.htm) , [PPT](Ch1/i_ppt01.zip) , [PDF](Ch1/BasicConcepts7Ed.pdf) Basic Concepts

Chapter   2: [PPT (zip)](Ch2/i_ppt02.zip) Resistive Circuits

2.1: [HTML](Ch2/OhmsLaw7Ed.htm) , [PPT](Ch2/OhmsLaw7Ed.ppt) , [PDF](Ch2/OhmsLaw7Ed.pdf) Ohm’s Laws

2.2: [HTML](Ch2/KirchhoffsLaws7Ed.htm) , [[PPT](Ch2/OhmsLaw7Ed.ppt)](Ch2\KirchhoffsLaws7Ed.ppt) , [PDF](Ch2/KirchhoffsLaws7Ed.pdf) Kirchoff’s Laws

[HTML](Ch2/Kvl7Ed.htm) , [[PPT](Ch2/OhmsLaw7Ed.ppt)](Ch2/Kvl7Ed.ppt) , [PDF](Ch2/Kvl7Ed.pdf) Kirchoff’s Voltage Law

[HTML](Ch2/Kcl7Ed.htm) , [[PPT](Ch2/OhmsLaw7Ed.ppt)](Ch2\Kcl7Ed.ppt) , [PDF](Ch2/Kcl7Ed.pdf) Kirchoff’s Current Law

2.3: [HTML](Ch2/SingleLoop7Ed.htm) , [PPT](Ch2/SingleLoop7Ed.ppt) , [PDF](Ch2/SingleLoop7Ed.pdf) Single Loop Circuits

2.4: Single Node-Pair Circuits

2.5: Series and Parallel Resistor Combinations

2.6: [HTML](Ch2/SeriesParallelDYReduction7Ed.htm) , [PPT](Ch2/SeriesParallelDYReduction7Ed.ppt) , [PDF](Ch2/SeriesParallelDYReduction7Ed.pdf) Circuits with Series-Parallel Combinations of Resistors

2.7: Wye ⇔ Delta Transformations

2.8: [HTML](Ch2/CircuitsWithDependentSources7Ed.htm) , [PPT](Ch2/CircuitsWithDependentSources7Ed.ppt) , [PDF](Ch2/CircuitsWithDependentSources7Ed.pdf) Circuits with Dependent Sources

Chapter   3: [PPT (zip)](Ch3/i_ppt03.zip) Nodal and Loop Analysis Techniques

3.1: [HTML](Ch3/NodeAnalysis7Ed.htm) , [PPT](Ch3/NodeAnalysis7Ed.ppt) , [PDF](Ch3/NodeAnalysis7Ed.pdf) Nodal Analysis

3.2: [HTML](Ch3/LoopAnalysis7Ed.htm) , [[PPT](Ch3/LoopAnalysis7Ed.ppt)](Ch2\KirchhoffsLaws7Ed.ppt) , [PDF](Ch3/LoopAnalysis7Ed.pdf) Loop Analysis

3.3: [HTML](Ch3/OpAmps7Ed.htm) , [PPT](Ch3/OpAmps7Ed.ppt) , [PDF](Ch3/OpAmps7Ed.pdf) Circuits with Operational Amplifiers

Chapter   4: [PPT (zip)](Ch4/i_ppt04.zip) Nodal and Loop Analysis Techniques

4.1: Introduction

4.2: [HTML](Ch4/IntroSuperposition7Ed.htm) , [[PPT](Ch4/IntroSuperposition7Ed.ppt)](Ch2\KirchhoffsLaws7Ed.ppt) , [PDF](Ch4/IntroSuperposition7Ed.pdf) Superposition (and Introduction)

4.3: [HTML](Ch4/TheveninNorton7Ed.htm) , [PPT](Ch4/TheveninNorton7Ed.ppt) , [PDF](Ch4/TheveninNorton7Ed.pdf) Thévenin’s and Norton’s Theorems

4.4: Maximum Power Transfer

4.5: DC Spice Analysis Using Schematic Capture

[HTML](Ch4/DesignAndApplication.htm) , [PPT](Ch4/DesignAndApplication.ppt) , [PDF](Ch4/DesignAndApplication.pdf) Learning by Application

Chapter   5: [HTML](Ch5/CapacitanceInductance7Ed.htm) , [PPT](Ch5/i_ppt05.zip) , [PDF](Ch5/CapacitanceInductance7Ed.pdf) Capacitance and Inductance

Chapter   6: [PPT (zip)](Ch6/i_ppt06.zip) First and Second Order transient Circuits

6.1: Introduction

6.2: [HTML](Ch6/Intro-FirstOrderDiffEq7Ed.htm) , [[PPT](Ch6/Intro-FirstOrderDiffEq7Ed.ppt)](Ch6/KirchhoffsLaws7Ed.ppt) , [PDF](Ch6/Intro-FirstOrderDiffEq7Ed.pdf) First Order Circuits (RL, RC, and Introduction)

[HTML](Ch6/StepByStep_Pulse7Ed.htm) , [[PPT](Ch6/StepByStep_Pulse7Ed.ppt)](Ch6/KirchhoffsLaws7Ed.ppt) , [PDF](Ch6/StepByStep_Pulse7Ed.pdf) Step-by-Step Pulse Analysis

6.3: [HTML](Ch6/SecondOrderCircuits7Ed.htm) , [PPT](Ch6/SecondOrderCircuits7Ed.ppt) , [PDF](Ch6/SecondOrderCircuits7Ed.pdf) Second Order Circuits (RLC)

6.4: Transient Pspice Analysis Using Schematic Capture

[HTML](Ch6/DesignAndApplications7Ed.htm) , [PPT](Ch6/DesignAndApplications7Ed.ppt) , [PDF](Ch6/DesignAndApplications7Ed.pdf) Learning by Design / Example

Chapter   7: [HTML](Ch7/ACSteadyStateAnalysis7Ed.htm) , [PPT](Ch7/i_ppt07.zip) , [PDF](Ch7/ACSteadyStateAnalysis7Ed.pdf) AC Steady-State Analysis (Phasors)

Chapter   8: [HTML](Ch8/MagneticallyCoupledNetworksRev.htm) , [PPT](Ch8/i_ppt08.zip) , [PDF](Ch8/MagneticallyCoupledNetworksRev.pdf) Magnetically Coupled Networks (Transformers, Mutual Inductance)

Chapter   9: [HTML](Ch9/SteadyStatePowerAnalysis.htm) , [PPT](Ch9/i_ppt09.zip) , [PDF](Ch9/SteadyStatePowerAnalysis.pdf) Steady-State Power Analysis

Chapter   10: [HTML](Ch10/PolyphaseCircuits.htm) , [PPT](Ch10/i_ppt10.zip) , [PDF](Ch10/PolyphaseCircuits.pdf) Polyphase Circuits

Chapter   11: [HTML](Ch11/VariableFrequencyResponseAnalysis7EdRev.htm) , [PPT](Ch11/i_ppt11.zip) , [PDF](Ch11/VariableFrequencyResponseAnalysis7EdRev.pdf) Variable Frequency Network Performance

Chapter   12: [HTML](Ch12/LaplaceTransformRev.htm) , [PPT](Ch12/i_ppt12.zip) , [PDF](Ch12/LaplaceTransformRev.pdf) The LaPlace Transform

Chapter   13: [HTML](Ch13/ApplicationOfLaplaceToCircuitsRev.ppt) , [PPT](Ch13/i_ppt13.zip) , [PDF](Ch13/ApplicationOfLaplaceToCircuitsRev.pdf) Application of The LaPlace Transform to Circuits

Chapter   14: [HTML](Ch14/FourierAnalysisTechniquesRev.htm) , [PPT](Ch14/i_ppt14.zip) , [PDF](Ch14/FourierAnalysisTechniquesRev.pdf) Fourier Analysis Techniques

Chapter   15: [HTML](Ch15/TwoPortNetworks7EdRev.htm) , [PPT](Ch15/i_ppt15.zip) , [PDF](Ch15/TwoPortNetworks7EdRev.pdf) Two-Port Networks

Chapter   16: [HTML](Ch16/BasicSemiconductorElectronicCircuits.htm) , [PPT](Ch16/i_ppt16.zip) , [PDF](Ch16/BasicSemiconductorElectronicCircuits.pdf) Basic Semiconductor Electronic Circuits

**Selected Answers to Homework Problems:** [PDF](Selected_Answers.pdf)

Notes: 1 - The HTM files only work in Internet Explorer (sorry) due to a quirk in PowerPoint

2 - The PPT files are large and open slowly, download the zipped versions for efficiency

[Download the PowerPoint Viewer](../../utilities/PPVIEW32.EXE)        (1.4 Mbytes – MS Windows 95 and later)

[Download the Adobe Acrobat Reader](http://www.adobe.com/products/acrobat/readstep2.html)   (4 - 8 MBytes depending on Operating System and options)