Mindluster Platform

About the course Analog Electronic Devices

Analog Electronic course, In this course explore fundamentals of Analog Electronics, covering circuits, components, and signal processing techniques.

Engineering Category's Courses

Course Lesson(158)

Lesson 1 : **Semiconductor Materials**

Lesson 2 : **Intrinsic and Extrinsic Semiconductors**

Lesson 3 : **Electron Vs Hole Flow**

Lesson 4 : **Mass Action Law**

Lesson 5 : **Charge Densities in a Semiconductor**

Lesson 6 : **Conductivity of a Semiconductor**

Lesson 7 : **Conductivity of Semiconductors Numerical Part 1**

Lesson 8 : **Conductivity of Semiconductors Numerical Part 2**

Lesson 9 : **PN Junction Diode No Applied Bias**

Lesson 10 : **Barrier Potential**

Lesson 11 : **Width of Depletion Region**

Lesson 12 : **PN Junction Diode Forward Bias Condition**

Lesson 13 : **PN Junction Diode Reverse Bias Condition**

Lesson 14 : **Semiconductor Diode**

Lesson 15 : **V I Characteristics of PN Junction Diode**

Lesson 16 : **Effects of Temperature on V I Characteristics**

Lesson 17 : **Ideal Vs Practical Diode**

Lesson 18 : **Diode Equivalent Circuits**

Lesson 19 : **Load Line Analysis of Diode**

Lesson 20 : **Load Line Analysis Numerical Problem**

Lesson 21 : **DC or Static Resistance of a Diode**

Lesson 22 : **AC or Dynamic Resistance of a Diode**

Lesson 23 : **Average AC Resistance of a Diode**

Lesson 24 : **Series Diode Configurations**

Lesson 25 : **Series Diode Configuration Examples**

Lesson 26 : **Parallel Diode Configurations**

Lesson 27 : **Parallel and Series Parallel Configuration of Diodes Examples**

Lesson 28 : **Introduction to Diode Rectifier Circuits**

Lesson 29 : **Half Wave Rectifier**

Lesson 30 : **Half Wave Rectifier RMS Load Current RMS Load Voltage**

Lesson 31 : **Half Wave Rectifier Form Factor**

Lesson 32 : **Half Wave Rectifier Ripple Factor**

Lesson 33 : **Half Wave Rectifier Efficiency PIV**

Lesson 34 : **Full Wave Bridge Rectifier**

Lesson 35 : **Full Wave Center Tapped Rectifier**

Lesson 36 : **Full Wave Rectifier DC Load Current DC Load Voltage**

Lesson 37 : **Full Wave Rectifier RMS Load Current RMS Load Voltage**

Lesson 38 : **Full Wave Rectifier Form Factor Ripple Factor**

Lesson 39 : **Full Wave Rectifier Efficiency PIV**

Lesson 40 : **Diode Rectifier Circuits Numerical Problem**

Lesson 41 : **Introduction to Zener Diodes**

Lesson 42 : **Effects of Temperature on Zener Voltage**

Lesson 43 : **Zener Diode as Voltage Regulator Part 1**

Lesson 44 : **Zener Diode as Voltage Regulator Part 2**

Lesson 45 : **Zener Diode as Voltage Regulator Part 3**

Lesson 46 : **Zener Diode as Voltage Regulator Part 4**

Lesson 47 : **Zener Diode Numerical Problems Part 1**

Lesson 48 : **Zener Diode Numerical Problems Part 2**

Lesson 49 : **Voltage Multiplier Circuits Half Wave Voltage Doubler**

Lesson 50 : **Voltage Multiplier Circuits Full Wave Voltage Doubler**

Lesson 51 : **Voltage Multiplier Circuits Voltage Tripler Quadrupler**

Lesson 52 : **Introduction to Clippers**

Lesson 53 : **Unbiased Series Clippers**

Lesson 54 : **Biased Series Clippers**

Lesson 55 : **Unbiased Parallel Clippers**

Lesson 56 : **Biased Parallel Clippers**

Lesson 57 : **Zener Diode Clipping Circuits**

Lesson 58 : **Combination Clipper Circuits**

Lesson 59 : **Transfer Characteristics of Clipper Circuit**

Lesson 60 : **Introduction to Clampers**

Lesson 61 : **Positive Negative Clamper Circuits**

Lesson 62 : **Biased Clamper Circuit**

Lesson 63 : **Clampers Solved Problem**

Lesson 64 : **Introduction to Bipolar Junction Transistors BJT**

Lesson 65 : **Working of Transistors**

Lesson 66 : **Common Base Configuration of a Transistor**

Lesson 67 : **CB Transistor Input Characteristics Early Effect**

Lesson 68 : **CB Transistor Output Characteristics**

Lesson 69 : **Transistor Amplifying Action**

Lesson 70 : **Common Emitter Configuration of a Transistor**

Lesson 71 : **Common Emitter Transistor Input Characteristics**

Lesson 72 : **Common Emitter Transistor Output Characteristics**

Lesson 73 : **Common Collector Configuration of a Transistor**

Lesson 74 : **Relation between Î± Î² and Î³**

Lesson 75 : **DC Biasing Load Line Operating Point of Transistors**

Lesson 76 : **Fixed Bias Configuration of a Transistor**

Lesson 77 : **Fixed Bias Configuration Solved Problem**

Lesson 78 : **Emitter Bias Configuration**

Lesson 79 : **Emitter Bias Configuration Solved Problem**

Lesson 80 : **Collector Feedback Biasing**

Lesson 81 : **Collector Feedback Biasing Solved Problem**

Lesson 82 : **Collector Feedback Bias with Emitter Resistance**

Lesson 83 : **Voltage Divider Bias**

Lesson 84 : **Voltage Divider Bias Solved Problem**

Lesson 85 : **Thermal Runaway in Transistors**

Lesson 86 : **Bias Stabilization and Stability Factors**

Lesson 87 : **Stability Factor for Fixed Bias Configuration**

Lesson 88 : **Stability Factor for Emitter Bias Configuration**

Lesson 89 : **Stability Factor for Collector Feedback Biasing**

Lesson 90 : **Stability Factor for Voltage Divider Bias**

Lesson 91 : **Transistor Saturation**

Lesson 92 : **Small Signal Analysis of BJT**

Lesson 93 : **AC Equivalent Circuit of BJT Amplifier**

Lesson 94 : **Hybrid Model Calculation of h Parameters**

Lesson 95 : **Hybrid Model Equivalent Circuit**

Lesson 96 : **Analysis of Transistor Amplifier Using h Parameters Part 1**

Lesson 97 : **Analysis of Transistor Amplifier Using h Parameters Part 2**

Lesson 98 : **Analysis of Transistor Amplifier Using h Parameters Part 3**

Lesson 99 : **Approximate Hybrid Equivalent Model**

Lesson 100 : **Conversion of h Parameters**

Lesson 101 : **re Transistor Model Part 1**

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Lesson 103 : **re Model Fixed Bias Configuration | Part 1**

Lesson 104 : **re Model Fixed Bias Configuration | Part 2**

Lesson 105 : **re Model Fixed Bias Configuration | Part 3**

Lesson 106 : **re Model Solved Problem 1**

Lesson 107 : **re Model Voltage Divider Bias**

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Lesson 109 : **Hybrid Ï€ Model**

Lesson 110 : **Hybrid Ï€ Model Solved Problem**

Lesson 111 : **Emitter Follower Configuration Part 1**

Lesson 112 : **Emitter Follower Configuration Part 2**

Lesson 113 : **Two Port Systems Approach**

Lesson 114 : **Two Port Systems Approach with Load Resistance**

Lesson 115 : **Two Port Systems Approach with Source Resistance**

Lesson 116 : **Two Port Systems Approach with Source and Load Resistances**

Lesson 117 : **Two Port Systems Approach Solved Problem**

Lesson 118 : **Cascaded Systems**

Lesson 119 : **Cascaded Systems Solved Problem**

Lesson 120 : **Darlington Pair**

Lesson 121 : **Touch Sensor Using Darlington Pair**

Lesson 122 : **DC Analysis of Darlington Circuit**

Lesson 123 : **Introduction to Field Effect Transistors FETs**

Lesson 124 : **Construction and Working of JFET**

Lesson 125 : **Working of JFET Zero Voltage at the Gate**

Lesson 126 : **Pinch off Voltage**

Lesson 127 : **JFET as a Current Source**

Lesson 128 : **Working of JFET Negative Voltage at the Gate**

Lesson 129 : **Output or Drain Characteristics of JFET**

Lesson 130 : **JFET as Voltage Controlled Resistor**

Lesson 131 : **Transfer Characteristics of JFET**

Lesson 132 : **BJT Vs JFET**

Lesson 133 : **JFET Solved Problems Part 1**

Lesson 134 : **JFET Solved Problems Part 2**

Lesson 135 : **Construction Working of Enhancement Type MOSFET Part 1**

Lesson 136 : **Construction Working of Enhancement Type MOSFET Part 2**

Lesson 137 : **Drain Characteristics of Enhancement Type MOSFET**

Lesson 138 : **Transfer Characteristics Symbols of Enhancement Type MOSFETs**

Lesson 139 : **Construction of Depletion Type MOSFET**

Lesson 140 : **Working of Depletion Type MOSFET**

Lesson 141 : **Drain Transfer Characteristics of Depletion Type MOSFET**

Lesson 142 : **MOSFET Solved Problems Part 1**

Lesson 143 : **MOSFET Solved Problems Part 2**

Lesson 144 : **Introduction to FET Biasing**

Lesson 145 : **Fixed Bias Configuration of JFET Mathematical Approach**

Lesson 146 : **Fixed Bias Configuration of JFET Graphical Approach**

Lesson 147 : **Fixed Bias Configuration of JFET Solved Problem**

Lesson 148 : **Self Bias Configuration of JFET Mathematical Approach**

Lesson 149 : **Self Bias Configuration of JFET Graphical Approach**

Lesson 150 : **Voltage Divider Bias Configuration of JFET**

Lesson 151 : **Common Gate Configuration of JFET**

Lesson 152 : **JFET Biasing Special Case**

Lesson 153 : **Introduction to Depletion Type MOSFET Biasing**

Lesson 154 : **Self Bias Configuration of Depletion Type MOSFET**

Lesson 155 : **Depletion Type MOSFET Biasing Special Case**

Lesson 156 : **Voltage Divider Bias Configuration of Depletion Type MOSFET**

Lesson 157 : **Depletion Type MOSFET Biasing Solved Problem**

Lesson 158 : **Introduction to Enhancement Type MOSFET Biasing**

Related courses

Cabinetry Basics

MFT and MFT related accessories

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CNC Computer numerical control

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