

<b>400 IDEAS FOR DESIGN</b>	
<b>COMPUTER AND PULSE CIRCUITS (cont.)</b>	
RC Pair Safely Sets Initial State of Relay Driver.....	74
Delayed-Pulse Generator Uses Fewer Components.....	75
SCR Drives Cold Cathode Counter Tube.....	75
Simple Gates Provide Binary Scale-of-Ten Counter.....	76
Mercury Relay Makes Fast-Rise Pulse Generator.....	76
Blocking Oscillator-And Gate Produces Standard Output Pulse.....	77
Transistorized Voltage-Frequency Converter Operates Linearly.....	77
Delay-Line Discriminator Detects Sequences of Pulse.....	78
FM Preserves Pulse Polarity in Ultrasonic Delay Lines.....	78
Indicating Shift Register Uses Silicon-Controlled Rectifiers.....	78
Tunnel Diode Triggers Avalanche Pulse Generator.....	79
Fixed Interval Timer Gates Random Pulse Stream.....	79
Transistor Stage Yields Polarity-Controlled Output.....	80
SCR Charge-Discharge Circuit Samples Slow Rep-Rate Pulses.....	80
Variable-Width Pulse Generator Provides Fast Rise/Fall Times.....	81
Root Taker Using Biased Diode Networks.....	81
Gate Circuit Inhibits Pulses on Command.....	82
Two-Transistors, Feedback Produce Free-Running Pulser.....	82
Inverted Exclusive-OR Circuit Compares Binary Bits.....	83
Zener, Diode Bridge Forms Double-Ended Clipper.....	83
Circuit Squares DC Input Voltage.....	83
Cascode Circuit Compensates for Heater-Voltage Sensitivity.....	84
Simple Transistor Circuits Generate Phantastron Sweeps.....	84
Biased-On AC Amplifier Boosts Low-Level Pulses.....	85
TD, Current-Mode Switch Deliver Fast 1-w Pulse.....	85
Photoelectric Elements Help Analog Circuits Divide, Multiply.....	86
Extra Triode Unloads Analog Computer Signal Source.....	87
Exclusive OR Circuit Uses Three Transistors.....	87
Differential Exclusive OR Reduces Logic Modules.....	88
Majority-Logic Adder Cuts Component Needs.....	88
Diode Sets Flip-Flops for Initial State at Turn-On.....	89
Direct-Coupled Transistors Provide Simple Parity Check.....	90
Exclusive-OR Needs No Complement.....	90
Mousetrap Generator Builds a Better Pulse.....	91
Magnetic Tape Detects Sections of Rotating Wheel.....	91
Neon Driver Circuit Uses Low Voltage Transistor.....	92
Zener Diode Reduces Schmitt Trigger Hysteresis.....	93
Short-Duration Pulses Drive Visual Indicators.....	93
Starter Circuit Guides Counter-Tube Beam.....	94
Simplified Pulse Circuit Has Low Output Impedance.....	94
Temperature Sensitive Resistors Are Low Cost Function Inverters.....	95
Modified NOR Circuit Automatically Presets Flip-Flop.....	95
Fast Squaring Circuit Preserves Phase Information.....	96
<b>CONTROL CIRCUITS</b>	
Quotient Circuit Substitutes for Difference Variable.....	97
Transistor Improves Response and Speed Regulation of DC Motor.....	97
Bridge Circuit Temperature Stabilizes Relay Operation.....	98
Filament Voltage Controls Thyatron Cut-Off.....	98
Diodes Allow Two-Wire Control of Limit-Switched Motor.....	99