



BITS Pilani

Hyderabad Campus

Department of Electrical Engineering



Digital Design

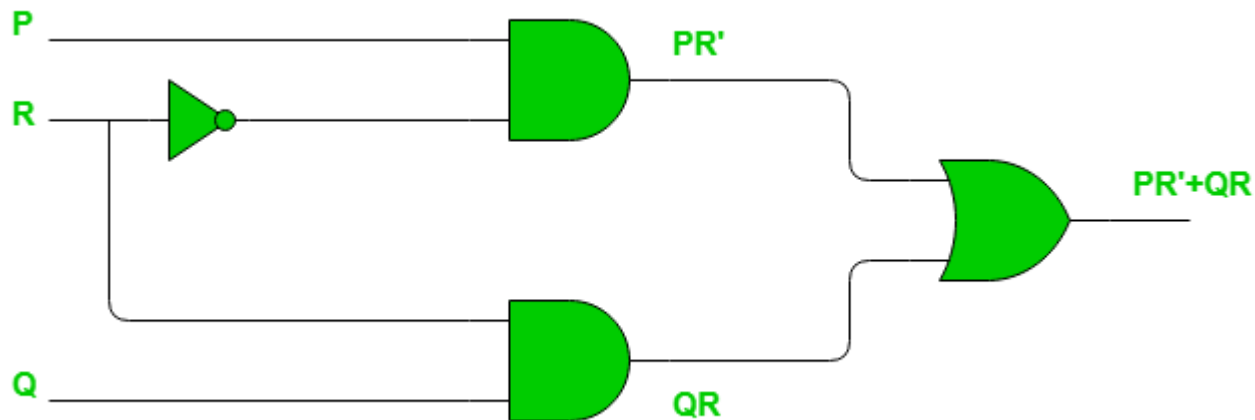
First Semester 2020-21

Tutorial : 06

Design using Decoders and Multiplexers

Digital Design Tutorial : 06

1. Identify hazard in the circuit and eliminate it



Digital Design Tutorial : 06

2.

Problem: Implement the function $f(w_1, w_2, w_3) = \sum m(0, 1, 3, 4, 6, 7)$ by using a 3-to-8 binary decoder and an OR gate.

Digital Design Tutorial : 06

3. Implement Full Adder Using Decoder

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4. Implement $F = X'YZ' + XY'Z + XYZ'$ with an 8:1 MUX

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Digital Design Tutorial : 06

5. Implement $F = X'YZ' + XY'Z + XYZ'$ with a 4:1 MUX