

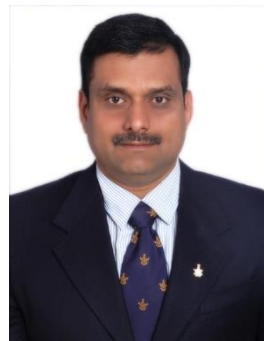


Digital Design : 2020-21

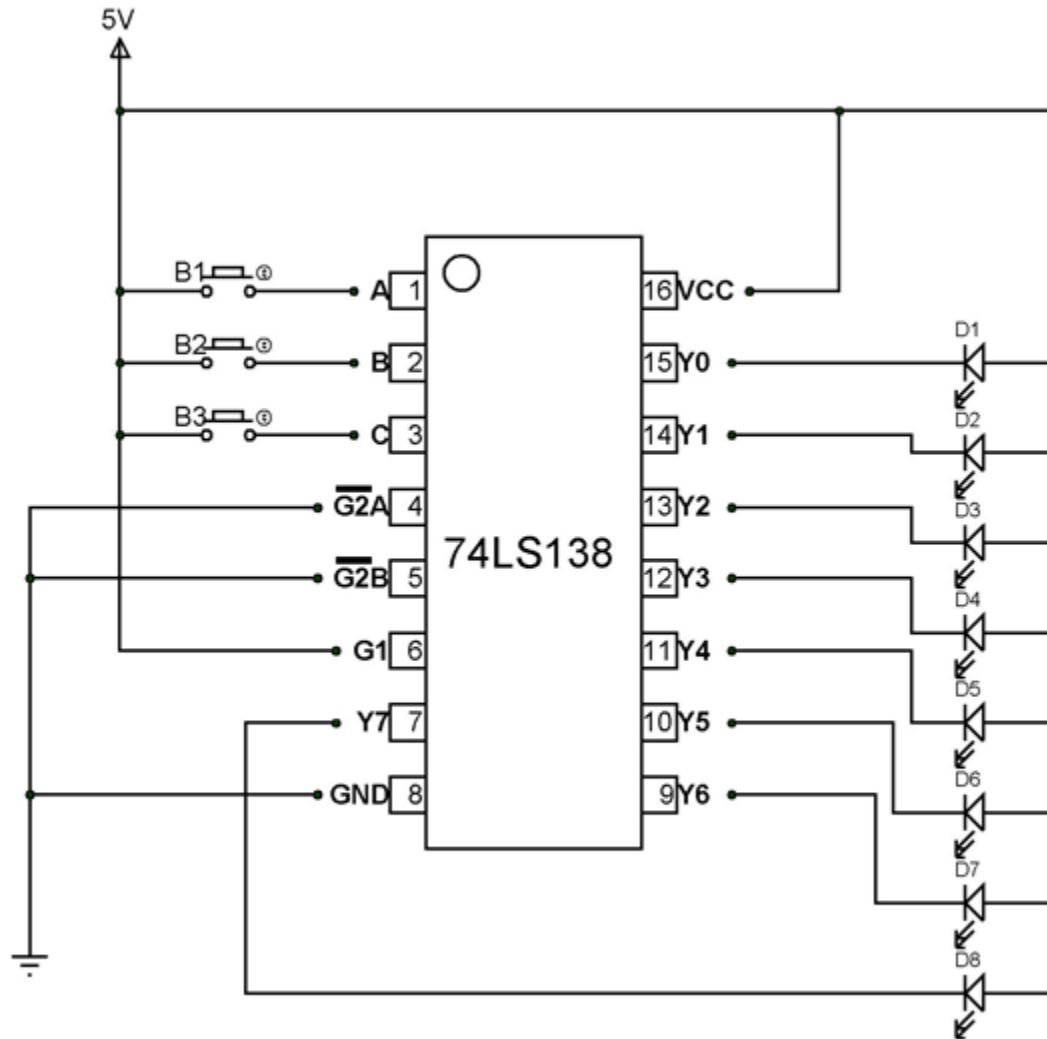
Lab 7

**Combinational Circuit Design using
Decoders and Multiplexers**

By Dr. Sanjay Vidhyadharan



The 74138 Decoder



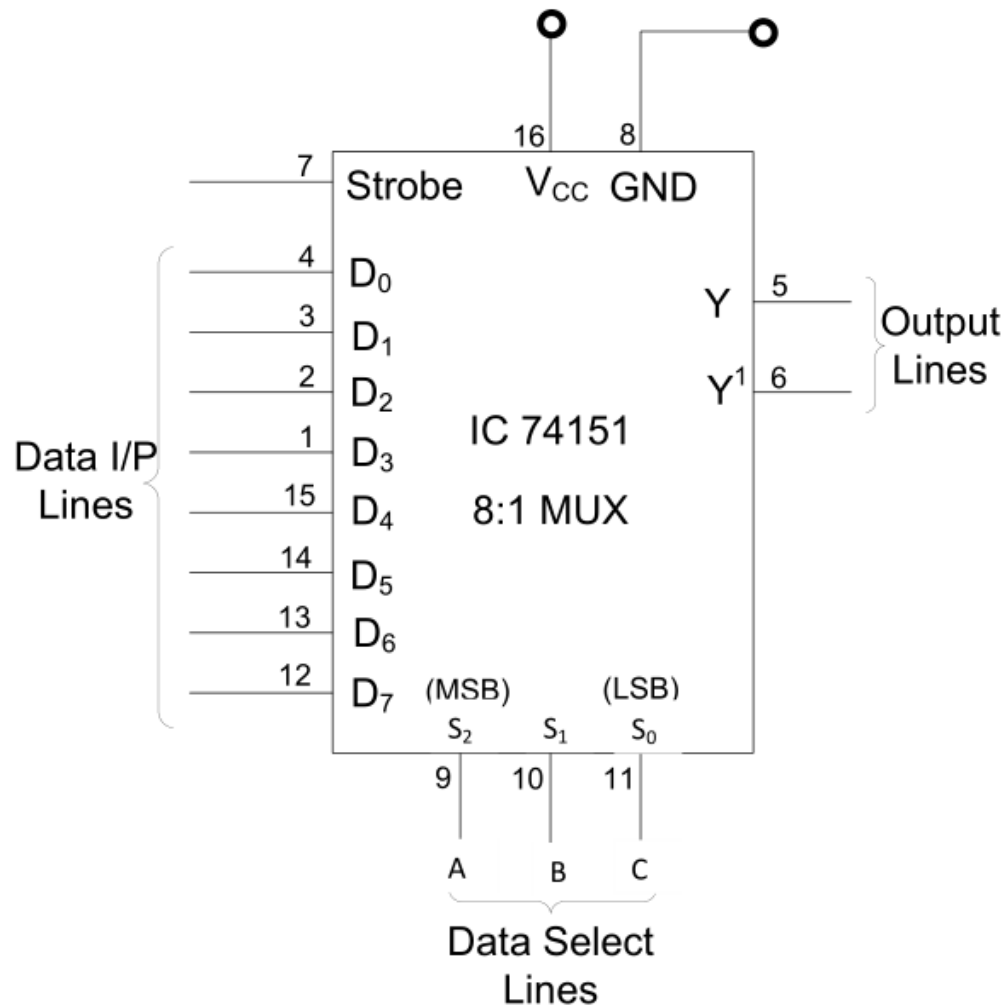
The 74138 Decoder

Problem 1: (a) Implement a Full Adder
(b) Implement a Majority Circuit

Note: Use single 74138 for both circuits

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The 74151 Mux



The 74151 Mux

Problem 2: Implement a Full Adder using 74151 Mux

Note: Use separate 74151 Mux for Sum and Carry

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Demonstration